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(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

(57) Abstract

Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.

## FOR THE PURPOSES OF INFORMATION ONLY

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### SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

# 5 <u>FIELD OF THE INVENTION</u>

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

#### **BACKGROUND OF THE INVENTION**

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

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Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

#### SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

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SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136,

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or a complement of said sequence.

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25 In other embodiments, the present invention provides an isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

> SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID

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NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID

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NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEO ID NO:230, SEO ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEO ID NO:270, SEO ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEO ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID 5

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or a complement of said sequence.

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In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

15 SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID 20 NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID 25 NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID 30 NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ

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ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154. SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEO ID NO:220, SEO ID NO:221, SEO ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEO ID NO:238, SEO ID NO:239, SEO ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253,

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or a complement of said sequence.

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In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEO ID NO:25, SEO ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID

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	NO:1905, SI	Q II	NO:1906	SEQ	ID	NO:1907,	SEQ	ID	NO:1908,	SEQ	ID
	NO:1909, SI	Q IE	NO:1910	SEQ	ID	NO:1911,	SEQ	ID	NO:1912,	SEQ	ID
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	NO:1981, SE	Q ID	NO:1982,	SEQ	ID	NO:1983,	SEQ	ID	NO:1984,	SEQ	ID
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	NO:1989, SE	Q ID	NO:1990,	SEQ	ID	NO:1991,	SEQ	ID	NO:1992,	SEQ	ID
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or to a complement of said sequence.

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The invention also provides for proteins encoded by the above-described polynucleotides. In certain preferred embodiments, the polynucleotide is operably linked to an expression control sequence. The invention also provides a host cell, including bacterial, yeast, insect and mammalian cells, transformed with such polynucleotide compositions. Also provided by the present invention are organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- (a) growing a culture of the host cell transformed with such polynucleotide compositions in a suitable culture medium; and
- (b) purifying the protein from the culture.
  The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

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### **DETAILED DESCRIPTION**

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

#### 15 <u>Table 2</u>

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

	1	AA239	18	AC365	35	AE327	52	AE479
20	2	AA249	19	AC384	36	AE358	53	AE502
	3	AA25	20	AC407	37	AE38	54	AE503
	4	AA292	21	AD599	38	AE382	55	AE520
	5	AA306	22	AD647	39	AE396	56	AE545
	6	AA336	23	AD655	40	AE399	57	AE549
25	7	AA34	24	AD803	41	AE401	58	AE57
	8	AA342	25	AE103	42	AE402	59	AE570
	9	AA356	26	AE210	43	AE403	60	AE595
	10	AA360	27	AE238	44	AE417	61	AE601
	11	AA38	28	AE252	45	AE424	62	AE606
30	12	AA43	29	AE289	46	AE435	63	AE610
	13	AA50	30	AE290	47	AE440	64	AE64
	14	AA64	31	AE302	48	AE443	65	AE648
	15	AC15	32	AE303	49	AE445	66	AE660
	16	AC334	33	AE314	50	AE468	67	AE674
35	17	AC349	34	AE319	51	AE471	68	AE693

	69	AE696	106	AH556	143	AM198	180	AT205
	70	AE90	107	AH601	144	AM260	181	AT211
	71	AF18	108	AH604	145	AM262	182	AT212
	72	AF217	109	AH612	146	AM292	183	AT215
5	73	AF221	110	AH622	147	AM338	184	AT216
	74	AF271	111	AH63	148	AM340	185	AT368
	<i>7</i> 5	AF276	112	AH652	149	AM341	186	AU112
	<b>7</b> 6	AF28	113	AH666	150	AM483	187	AU117
	<i>77</i>	AF42	114	AH8	151	AM57	188	AV10
10	<i>7</i> 8	AF49	115	AJ102	152	AM574	189	AV110
	<b>7</b> 9	AF51	116	AJ118	153	AM58	190	AV117
	80	AF52	117	AJ149	154	AM690	191	AV129
	81	AF54	118	AJ151	155	AM691	192	AV141
	82	AF85	119	AJ75	156	AM699	193	AV152
15	83	AG107	120	AJ88	157	AM748	194	AV156
	84	AG121	. 121	AK296	158	AM764	195	AV179
	85	AG175	122	AK384	159	AM776	196	AV189
	86	AG237	123	AK421	160	AM830	197	AV22
20	87	AG99	124	AK489	161	AM87	198	AV227
	88	AH106	125	AK492	162	AM880	199	AV30
	89	AH123	126	AK533	163	AM900	200	AV6
	90	AH144	127	AK554	164	AM905	201	AV66
	91	AH191	128	AK595	165	AM916	202	AV7
	92	AH196	129	AK600	166	AM946	203	AV92
25	93	AH230	130	AK672	167	AM964	204	AW242
	94	AH239	131	AK698	168	AN89	205	AX2
	95	AH356	132	AK759	169	AO90	206	AY123
	96	AH372	133	AM1019	170	AP132	207	AY177
	97	АН38	134	AM1044	171	AP240	208	AY225
30	98	AH383	135	AM1057	172	AP244	209	AY254
	99	AH389	136	AM1085	173	AQ51	210	AY322
	100	AH406	137	AM1111	174	AR260	211	AY344
	101	AH418	138	AM1122	1 <b>7</b> 5	AS286	212	AY412
	102	AH51	139	AM1131	1 <b>7</b> 6	A532	213	AY434
35	103	AH547	140	AM157	177	AS34	214	AY448
•	104	AH55	141	AM184	178	AS98	215	AY97
	105	AH555	142	AM185	179	AT106	216	AZ278
		•						

	217	BB8	254	BD368	291	BV20	328	D137
	218	BB9	255	BD451	292	BV223	329	D137
	219	BC128	256	BD453	293	BZ398	330	D24
	220	BC130	257	BD471	294	BZ595	331	DD23
5	221	BC132	258	BD54	295	C282	332	DD239
	222	BC170	259	BD81	296	C545	333	DD254
	223	BC226	260	BG46	297	C662	334	DD344
	224	BC246	261	BG52	298	CA1	335	DD523
	225	BC253	262	BG54	299	CA100	336	DD70
10	226	BC262	263	BG65	300	CA104	337	DD77
	227	BC272	264	BG66	301	CA105	338	DG288
	228	BC294	265	BG68	302	CA106	339	DG319
	229	BC295	266	BG77	303	CA114	340	DH1147
	230	BC300	267	BG78	304	CA119	341	DI396
15	231	BC303	268	BH126	305	CA127	342	DL486
	232	BC306	269	BH212	306	CA133	343	DO441
	233	BC308	270	BH349	307	CA15	344	DP101
	234	BC317	271	BI101	308	CA157	345	DP102
20	235	BC351	272	ВJ35	309	CA165	346	DP105
	236	BC370	273	BJ65	310	CA173	347	DP106
	237	BC390	274	BL150	311	CA176	348	DP109
,	238	BC409	275	BN13	312	CA180	349	DP111
	239	BC410	276	BN185	313	CA183	350	DP120
	240	BC420	277	BN203	314	CA3	351	DP122
25	241	BC430	278	BN34	315	CA41	352	DP127
	242	BC456	279	BN381	316	CA44	353	DP131
	243	BC457	280	BN73	317	CA51	354	DP135
	244	BC467	281	BO13	318	CA57	355	DP140
	245	BC471	282	BO342	319	CA79	356	DP147
30	246	BC473	283	BO356	320	CA94	357	DP175
	247	BC72	284	BO41	321	CC53	358	DP180
	248	BC75	285	BO541	322	CJ210	359	DP97
	249	BD112	286	BP116	323	CJ384	360	DU499
	250	BD249	287	BP578	324	CL164	361	DY39
35	251	BD283	288	BP582	325	CR1187	362	DY691
	252	BD306	289	BP822	326	CR552	363	DZ23
	253	BD353	290	BT138	327	D130	364	EF109

	365	EK610	402	GL404	439	HS11	476	IS114
	366	EM161	403	GL417	440	HS110	477	IS20
	367	EN426	404	GL428	441	HS154	478	IS337
	368	FE109	405	GL44	442	HS165	479	IS475
5	369	FH109	406	GL50	443	HS177	480	IS566
	<b>37</b> 0	FQ712	<u> 1</u> 07	GW159	444	HS25	481	IS589
	371	FT124	408	GW263	445	HS278	482	IT213
	372	FT214	409	GW38	446	HS34	483	IT217
	373	FT222	410	GW48	447	HS351	484	IT240
10	374	FT318	411	GW75	448	HS413	485	IT250
_	375	FT358	412	GZ440	449	HS432	486	IT263
	376	FT58	413	H1138	450	HS460	487	IT63
	377	FT62	414	H118	451	HS465	488	TT98
	378	FU149	415	H1305	452	HS470	489	IU103
15	379	FU171	416	H1317	<b>45</b> 3	HS66	490	IU176
	380	FU284	417	H1419	454	HS662	491	IU190
	381	FU309	418	H1428	455	HV233	492	IU202
	382	FU344	419	H1496	456	HX92	493	TU23
	383	FZ150	420	H206	457	IB60	494	IU61
20	384	G81 ·	421	H237	<b>458</b>	IE42	495	IU63
	385	GA348	422	H298	459	IF338	496	TU88
	386	GC471	423	H31	460	IF50	497	IW47
	387	GC479	424	H318	461	IF605	498	IW66
	388	GE444	425	H4.55	462	<b>IJ1129</b>	499	IW73
25	389	GJ217	426	H617	463	IJ1193	500	IW79
	390	G <b>J27</b> 0	427	H83	464	IJ1442	501	IW90
	391	GJ286	428	H857	465	IJ15 <b>4</b> 2	502	IX118
	392	GL106	429	H863	466	IJ181	503	IX125
	393	GL110	430	H905	467	IJ226	504	IX62
30	394	GL140	431	H963	468	IK125	505	IY40
	395	GL15	432	HB1142	469	IK418	506	IY47
	396	GL278	433	HB1209	470	IK58	507	IY58
	397	GL294	434	HE153	471	IK93	508	IZ47
	398	GL32	435	HE212	472	IR162	509	J218
35	399	GL323	436	HL458	473	IR30	510	J59
	400	GL330	437	HR211	474	IR31	511	JA64
	401	GL366	438	HS100	475	IR70	512	JB17

	513	JF15	550	K113	587	K39	624	KB57
	514	JF64	551	K115	588	K40	625	KG2
	515	JF76	552	K122	589	K409	626	KH13
	516	JK39	553	K139	590	K417	627	KI195
5	517	JK45	554	K148	591	K421	628	KI253
	518	JL55	555	K155	592	K422	629	KI362
	519	JM33	556	K168	593	K426	630	KI493
	520	JM49	557	K176	594	K433	631	KJ1
	521	JM64	558	K178	595	K446	632	KJ10
10	522	JM75	559	K18	596	K464	633	KJ120
	523	JN33	560	K213	597	K483	634	KJ124
	524	JN85	561	K22	598	K488	635	KJ131
	525	JQ1	562	K227	599	K490	636	KJ141
	526	JQ29	563	K232	600	K51	637	KJ142
15	527	JS7	564	K233	601	K511	638	KJ19
	528	JT113	565	K235	602	K524	639	KJ190
	529	JT118	566	K240	603	K525	640	KJ215
	530	JT170	567	K254	604	K529	641	KJ218
	531	JT6	568	K255	605	K568	642	KJ231
20	532	JT61	569	K264	606	K60	643	KJ247
÷	533	JT62	570	K271	607	K619	644	KJ258
	534	JT65	571	K280	608	K640	645	KJ320
	535	JT77	572	K281	609	K67	646	KJ321
	536	JW117	<b>57</b> 3	K285	610	K71	647	KJ360
25	537	JW21	574	K289	611	K80	648	KJ41
	538	JW35	<i>57</i> 5	K294	612	K82	649	KJ46
	539	JW48	576	K30	613	KA105	650	KJ469
	540	JW91	5 <b>7</b> 7	K302	614	KA107	651	KJ480
	541	JY112	578	K314	615	KA108	652	KJ539
30	542	JY162	579	K32	616	KA113	653	KJ600
	543	JY2	580	K322	617	KA115	654	KJ611
	544	JY6	581	K330	618	KA3	655	KJ623
	545	JY61	582	K361	619	KA46	656	KJ63
	546	JZ13	583	K363	620	KA97	657	KJ664
35	547	JZ33	584	K368	621	KB137	658	KJ689
	548	JZ95	585	K370	622	KB2	659	KJ699
	549	K10	586	K38	623	KB49	660	KJ713

	661	KJ723	698	KN606	<b>7</b> 35	KX136	772	LE75
	662	KJ727	699	KN628	736	KX170	773	LF191
	663	KJ737	700	KN678	737	KY2	774	LF250
•	664	KJ740	701	KO148	738	KY49	<i>7</i> 75	LF268
5	665	KJ748	702	KO174	739	KZ135	<i>7</i> 76	LF273
	666	KJ772	703	KO179	740	KZ165	777	LF307
	667	KJ777	704	KO258	741	KZ208	778	LF341
	668	KJ78	705	KO266	742	KZ288	779	LF378
	669	KJ793	706	KO319	743	KZ312	780	LF400
10	670	KJ8	707	KO332	744	KZ35	<b>781</b>	LF416
	671	KJ804	708	KO481	745	KZ46	<b>7</b> 82	LF470
	672	KJ807	<b>70</b> 9	KO50	746	KZ56	783	LF56
	673	KJ82	710	KO508	747	L102	784	LF6
	674	KJ853	711	KO575	748	L106	<b>7</b> 85	LG101
15	<b>67</b> 5	KJ870	712	KP86	749	L108	786	LG128
	676	KJ876	713	KQ27	<i>7</i> 50	L12	787	LG151
	677	KJ879	714	KR169	<b>7</b> 51	L129	788	LG155
	678	KJ96	<b>7</b> 15	KR190	<b>7</b> 52	L137	<b>789</b>	LG174
	679	KL109	716	KR221	753	L153	790	LG189
20	680	KL118	717	KR240	754	L161	791	LG237
	681	KL823	718	KR299	<b>7</b> 55	L189	792	LG26
	682	KL883	719	KR38	<b>7</b> 56	L195	793	LG264
	683	KL903	720	KS20	<i>7</i> 57	L196	794	LG280
	684	KM14	721	KS40	<b>758</b>	L198	<b>7</b> 95	LG322
25	685	KM157	<b>722</b>	KS41	<b>759</b>	L2	<b>7</b> 96	LG64
	686	KM225	723	KS47	760	L200	797	LH156
	687	KM288	724	KS71	<b>761</b>	L202	798	LH376
	688	KM309	<b>72</b> 5	KT25	762	L209	<i>7</i> 99	LI210
	689	KN1010	<b>72</b> 6	KT61	763	L238	800	LI302
30	690	KN1146	<b>7</b> 27	KU84	764	L250	801	LI307
	691	KN157	728	KU95	765	L256	802	LI392
	692	KN159	729	KV10	766	L3	803	L1506
	693	KN436	730	KV16	767	L5	804	LI515
	694	KN439	731	KV29	<b>768</b>	L64	805	LI674
35	695	KN446	732	KW27	<b>7</b> 69	L69	806	LI684
	696	KN487	733	KW28	770	LC85	807	L1705
	697	KN498	734	KW44	<i>7</i> 71	LE10	808	L1767

	809	LJ103	846	LR190	883	LS44	920	LU556
	810	LJ119	847	LR204	884	LS45	921	LU558
	811	LJ12	848	LR220	885	LS50	922	LU580
	812	LJ145	849	LR260	886	LS62	923	LU697
5	813	LJ290	850	LR286	887	LS87	924	LU724
	814	LK17	851	LR315	888	LS9	925	LU789
	815	LK57	852	LR32	889	LS98	926	LU810
	816	LL22	853	LR323	890	LT195	927	LU811
	817	LL89	854	LR337	891	LT255	928	LU820
10	818	LN86	855	LR347	892	LT28	929	LU864
	819	LO220	856	LR360	893	LT285	930	LV118
	820	LO292	857	LR381	894	LT289	931	LV157
	821	LO311	858	LR398	895	LT321	932	LV2
	822	LO32	859	LR406	896	LT369	933	LV209
15	823	LP118	860	LR432	897	LT380	934	LV253
	824	LP197	861	LR447	898	LT384	935	LV292
	825	LP274	862	LR561	899	LT386	936	LV296
	826	LP391	863	LR568	900	LT390	937	LV310
	827	LP436	864	LR57	901	LT403	938	LV317
20	<b>82</b> 8	LP474	865	LR596	902	LT410	939	LV331
	829	LP529	866	LR607	903	LT48	940	LV371
	830	LP547	867	LR612	904	LT595	941	LV376
	831	LP562	868	LR618	905	LT620	942	L <b>V388</b>
	832	LP572	869	LR636	906	LT634	943	LV435
25	833	LP574	870	LR76	907	LT646	944	LV449
	834	LP584	871	LR79	908	LT686	945	LV462
	835	LP585	872	LR95	909	LT96	946	LV505
	836	LP615	873	LS101	910	LU127	947	LV506
	837	LP631	874	LS120	911	LU164	948	LV528
30	838	LP667	875	LS121	912	LU211	949	LV555
	839	LP672	876	LS123	913	LU309	950	LV621
	840	LP675	877	LS139	914	LU38	951	LV85
	841	LP97	878	LS150	915	LU380	952	LV98
	842	LR110	879	LS16	916	LU399	953	LW1
35	843	LR128	880	LS18	917	LU460	954	LW104
•	844	LR141	881	LS203	918	LU480	955	LW113
	845	LR170	882	LS36	919	LU524	956	LW123

	957	LW126	994	M66	1031	MC361	1068	ME252
	958	LW145	995	M8	1032	MC367	1069	ME253
	959	LW150	996	M83	1033	MC376	1070	ME258
	960	LW59	997	M93	1034	MC413	1071	ME387
5	961	LW63	998	M95	1035	MC69	1072	ME44
	962	L <b>W97</b>	999	MA101	1036	MC83	1073	ME456
	963	LX106	1000	MA122	1037	MC88	1074	ME495
	964	LX107	1001	MA130	1038	MC96	1075	ME505
	965	LX111	1002	MA158	1039	MD112	1076	ME514
10	966	LX115	1003	MA172	1040	MD124	1077	ME519
	967	LX121	1004	MA174	1041	MD167	1078	ME569
	968	LX128	1005	MA232	1042	MD169	1079	ME596
	969	LX135	1006	MA270	1043	MD170	1080	ME614
	970	LX138	1007	MB261	1044	MD171	1081	ME691
15	971	LX155	1008	MB340	1045	MD178	1082	ME709
	972	LX174	1009	MB365	1046	MD183	1083	ME721
	973	LX176	1010	MB85	1047	MD300	1084	ME744
	974	LX18	1011	MB88	1048	MD303	1085	ME756
	975	LX226	1012	MC11	1049	MD312	1086	ME771
20	976	LX270	1013	MC125	1050	MD363	1087	ME787
	977	LX308	1014	MC137	<b>1</b> 051	MD39	1088	ME796
	978	LX327	1015	MC14	1052	MD437	1089	ME804
	979	LX344	1016	MC155	1053	MD467	1090	MF135
	980	LX358	1017	MC180	1054	MD500	1091	MG101
25	981	LX59	1018	MC199	1055	MD521	1092	MG105
	982	LX73	1019	MC252	1056	MD536	1093	MG141
	983	LZ143	1020	MC286	1057	MD54	1094	MG168
	984	LZ290	1021	MC293	1058	MD544	1095	MG184
	985	LZ62	1022	MC294	1059	MD649	1096	MG241
30	986	LZ63	1023	MC298	1060	MD708	1097	MG28
	987	M143	1024	MC300	1061	MD729	1098	MG417
	988	M171	1025	MC301	1062	MD80	1099	MG434
	989	M174	1026	MC305	1063	ME116	1100	MG442
	990	M252	1027	MC308	1064	ME233	1101	MG491
35	991	M281	1028	MC317	1065	ME236	1102	MG582
	992	M343	1029	MC336	1066	ME237	1103	MG583
	993	M57	1030	MC353	1067	ME247	1104	MG86

	1105	MH147	1142	MI379	1179	MK220	1216	ML74
	1106	MH218	1143	MI381	1180	MK242	1217	ML90
	1107	MH250	1144	MI395	1181	MK252	1218	ML95
	1108	MH255	1145	MI411	1182	MK262	1219	ML97
5	1109	MH256	1146	MI443	1183	MK28	1220	MM106
	1110	MH270	1147	MI450	1184	MK288	1221	MM131
	1111	MH277	1148	MI458	1185	MK309	1222	MM152
	1112	MH304	1149	MI478	1186	MK333	1223	MM165
	1113	MH318	1150	MI479	1187	MK337	1224	MM167
10	1114	MH404	1151	MI50	1188	MK34	1225	MM193
	1115	MH429	1152	MI561	1189	MK377	1226	MM197
	1116	MH449	1153	MI565	1190	ML10	1227	MM308
	1117	MH455	1154	MI578	1191	ML118	1228	MM367
	1118	MH498	1155	MI590	1192	ML133	1229	MM374
15	1119	MH51	1156	MJ116	1193	ML145	1230	MM397
	1120	MH613	1157	MJ166	1194	ML19	1231	MM408
	1121	MH617	1158	MJ197	<b>119</b> 5	ML212	1232	MM417
	1122	MH68	1159	MJ301	1196	ML227	1233	MM422
•	1123	MH703	1160	MJ310	1197	ML234	1234	MM426
20	1124	MH730	1161	MJ312	1198	ML235	1235	MM453
	1125	MH753	1162	MJ343	1199	ML236	1236	MM459
	1126	MH86	1163	MJ36	1200	ML243	1237	MM52
	1127	MI102	1164	MJ403	1201	ML246	1238	MM543
	1128	MI138	1165	MJ411	1202	ML265	1239	MM561
25	1129	MI15	1166	MJ459	1203	ML278	1240	MM562
	1130	MI213	1167	MJ462	1204	MIL285	1241	MM567
	1131	MI226	1168	MJ476	1205	MI.40	1242	MM658
	1132	MI232	1169	MJ48	1206	ML460	1243	MM670
	1133	MI276	1170	MJ80	1207	ML468	1244	MM72
30	1134	MI317	1171	MJ94	1208	ML477	1245	MN186
	1135	MI318	1172	MJ99	1209	MI.546	1246	MN219
	1136	MI327	1173	MK106	1210	ML550	1247	MN265
	1137	MI330	1174	MK112	1211	ML551	1248	MN275
	1138	MI350	1175	MK135	1212	ML564	1249	MN296
35	1139	MI354	1176	MK147	1213	ML601	1250	MN297
	1140	MI356	1177	MK2	1214	ML616	1251	MN320
	1141	MI361	1178	MK205	1215	ML636	1252	MN341

	1253	MN356	1290	MT205	1327	MY32	1364	NA1035
	1254	MN427	1291	MT218	1328	MY340	1365	NA1036
	1255	MN450	1292	MT24	1329	MY91	1366	NA1039
	1256	MN476	1293	MT50	1330	MZ101	1367	NA1071
5	1257	MN501	1294	MT54	1331	MZ330	1368	NA1076
	1258	MN504	1295	MT74	1332	MZ344	1369	NA1083
	1259	MN521	1296	MT88	1333	MZ364	1370	NA1089
	1260	MN526	1297	MT91	1334	MZ374	1371	NA1095
	1261	MN539	1298	MU114	1335	MZ436	1372	NA1102
10	1 <b>2</b> 62	MN545	1299	MU124	1336	MZ445	1373	NA1105
	1263	MN550	1300	MU162	1337	MZ469	1374	NA1119
	1264	MN562	1301	MU173	1338	MZ527	1375	NA1120
	1265	MP13	1302	MU40	1339	MZ528	1376	NA1142
	1266	MP18	1303	MU83	1340	MZ531	1377	NA1146
15	1267	MP22	1304	MU88	1341	MZ65	1378	NA1149
	1268	MP29	1305	MU91	1342	N126	1379	NA116
	1 <b>26</b> 9	MP31	1306	MX78	1343	N145	1380	NA117
	1270	MP34	1307	MY108	1344	N154	1381	NA118
	1271	MP36	1308	MY111	1345	N158	1382	NA12
20	1272	MP39	1309	MY115	1346	N159	1383	NA1225
	1273	MP40	1310	MY119	1347	N189	1384	NA1234
	1274	MP5	1311	MY125	1348	N209	1385	NA1240
	1275	MQ19	1312	MY136	1349	N211	1386	NA1241
	1276	MQ199	1313	MY145	1350	N213	1387	NA125
25	1277	MQ47	1314	MY159	1351	N223	1388	NA1250
	1278	MQ55	1315	MY164	1352	N42	1389	NA1257
	1279	MR106	1316	MY176	1353	N44	1390	NA1260
	1280	MR118	1317	MY221	1354	N46	1391	NA1270
	1281	MR146	1318	MY228	1355	N54	1392	NA1281
30	1282	MR160	1319	MY253	1356	N8	1393	NA1292
	1283	MR48	1320	MY259	1357	N85	1394	NA1299
	1284	MS133	1321	MY270	1358	N9	1395	NA1300
	1285	MS47	1322	MY271	1359	NA100	1396	NA1311
	1286	MS86	1323	MY275	1360	NA1001	1397	NA133
35	1287	MT120	1324	MY28	1361	NA1010	1398	NA142
	1288	MT124	1325	MY303	1362	NA1023	1399	NA15
	1289	MT173	1326	MY306	1363	NA1026	1400	NA160

	1401	NA166	1438	NA76	1475	NB944	1512	NF130
	1402	NA20	1439	NA785	1476	NB955	1513	NF168
	1403	NA222	1440	NA790	1477	NB968	1514	NF179
	1404	NA227	1441	NA84	1478	NC112	1515	NF194
5	1405	NA234	1442	NA844	1479	NC22	1516	NF299
	1406	NA252	1443	NA845	1480	NC36	1517	NF360
	1407	NA26	1444	NA86	1481	NC50	1518	NF405
	1408	NA261	1445	NA89	1482	ND10	1519	NF424
	1409	NA315	1446	NA938	1483	ND11	1520	NF425
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	1411	NA319	1448	NA988	1485	ND143	1522	NF448
	1412	NA347	1449	NA993	1486	ND145	1523	NF477
	1413	NA355	1450	NB183	1487	ND17	1524	NF506
	1414	NA363	1451	NB31	1488	ND172	1525	NF513
15	1415	NA372	1452	NB420	1489	ND42	1526	NF550
	1416	NA400	1453	NB434	1490	ND70	1527	NP56
	1417	NA401	1454	NB463	1491	NE104	1528	NF570
	1418	NA408	1455	NB485	1492	NE149	1529	NF577
	1419	NA42	1456	NB487	1493	NE173	1530	NF579
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	1421	NA446	1458	NB522	1495	NE2	1532	NF61
	1422	NA461	1459	NB524	1496	NE236	1533	NF646
	1423	NA465	1460	NB535	1497	NE270	1534	NF671
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	1426	NA484	1463	NB630	1500	NE306	1537	NF709
	1427	NA492	1464	NB719	1501	NE312	1538	NF87
	1428	NA493	1465	NB733	1502	NE334	1539	NF93
	1429	NA494	1466	NB747	1503	NE339	1540	NG109
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	1431	NA543	1468	NB808	1505	NE350	1542	NG134
	1432	NA547	1469	NB827	1506	NE353	1543	NG170
•	1433	NA610	1470	NB85	1507	NE359	1544	NG18
	1434	NA669	1471	NB861	1508	NE360	1545	NG188
35	1435	NA69	1472	NB892	1509	NE367	1546	NG214
	1436	NA708	1473	NB908	1510	NE55	1547	NG227
	1437	NA730	1474	NB922	1511	NE82	1548	NG231

	1549	NG233	1586	NH455	1623	NHAG256	1660	NL15
	1550	NG242	1587	NH459	1624	NHAN115	1661	NL192
	1551	NG261	1588	NH483	1625	NHAN150	1662	NL285
	1552	NG272	1589	NH502	1626	NHAN171	1663	NL29
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	1554	NG351	1591	NH59	1628	NHAN216	1665	NL294
	1555	NG363	1592	NH675	1629	NHAN304	1666	NL306
	1556	NG365	1593	NH686	1630	NHAN306	1667	NL310
	1557	NG367	1594	NH688	1631	NHAN307	1668	NL312
10	1558	NG396	1595	NH689	1632	NHAN320	1669	NL328
	1559	NG399	1596	NH733	1633	NHAN381	1670	NL407
	1560	NG415	1597	NH794	1634	NHAN94	1671	NL415
	1561	NG424	1598	NH796	1635	NHAW129	1672	NL419
	1562	NG435	1599	NH853	1636	NHAW268	1673	NL438
15	1563	NG463	1600	NH884	1637	NHAW282	1674	NL481
	1564	NG475	1601	NH898	1638	NHAW416	1675	NL492
	1565	NG476	1602	NH899	1639	NHAW677	1676	NI.494
	1566	NG525	1603	NHAB100	1640	NI104	1677	NL516
	1567	NG552	1604	NHAB344	1641	NI172	1678	NL526
20	1568	NG556	1605	NHAB391	1642	NI185	1679	NL528
	1569	NG585	1606	NHAB4	1643	NI208	1680	NL537
	1570	NG619	1607	NHAE10	1644	NI219	1681	NL560
	1571	NG634	1608	NHAE101	1645	NI220	1682	NL563
	1572	NG635	1609	NHAE123	1646	NI76	1683	NL567
25	1573	NG67	1610	NHAE149	1647	NI93	1684	NL572
	1574	NH119	1611	NHAE220	1648	NJ2	1685	NL573
	1575	NH125	1612	NHAE27	1649	NJ24	1686	NL582
	1576	NH163	1613	NHAE29	1650	NJ41	1687	NL598
	1577	NH169	1614	NHAE322	1651	NJ44	1688	NL613
30	1578	NH239	1615	NHAE327	1652	NJ8	1689	NL623
	1579	NH28	1616	NHAE331	1653	NK24	1690	NL641
	1580	NH315	1617	NHAE96	1654	NK27	1691	NL659
	1581	NH328	1618	NHAG1	1655	NK40	1692	NL701
	1582	NH330	1619	NHAG203	1656	NL11	1693	NL707
35	1583	NH369	1620	NHAG22	1657	NL117	1694	NL710
	1584	NH4	1621	NHAG225	1658	NL122	1695	NL715
	1585	NH44	1622	NHAG230	1659	NL139	1696	NM134

	1697	NM135	1734	NN16	1771	NN343	1808	NP23
	1698	NM137	1735	NN177	1772	NN37	1809	NP26
	1699	NM140	1736	NN179	1773	NN41	1810	NP260
	1700	NM145	1737	NN182	1774	NN42	1811	NP261
5	1701	NM148	1738	NN2	<b>177</b> 5	NN45	1812	NP264
	1702	NM160	1739	NN203	<b>17</b> 76	NN50	1813	NP270
	1703	NM166	1740	NN206	1 <b>77</b> 7	NN51	1814	NP271
	1704	NM169	1741	NN207	1 <b>7</b> 78	NN6	1815	NP272
	1705	NM186	1742	NN210	<b>177</b> 9	NN60	1816	NP275
10	1706	NM190	1743	NN212	1780	NN62	1817	NP279
	1707	NM2	1744	NN229	<b>17</b> 81	NN63	1818	NP281
	1708	NM211	1745	NN233	1782	NN84	1819	NP296
	1709	NM214	1746	NN241	1783	NN9	1820	NP3
	1710	NM218	1 <b>7</b> 47	NN247	1784	NN90	1821	NP32
15	1711	NM25	1748	NN248	1785	NN93	1822	NP37
	1 <b>7</b> 12	NM4	1749	NN26	1786	NO48	1823	NP4
	1713	NM47	1750	NN260	1787	NP104	1824	NP46
	1714	NM52	1 <b>7</b> 51	NN264	1788	NP119	1825	NP49
	1715	NM54	1752	NN270	1789	NP126	1826	NP68
20	1716	NM55	1753	NN273	1790	NP129	1827	NP79
	1717	NM56	1754	NN280	1791	NP131	1828	NP86
	1718	NM79	1 <i>7</i> 55	NN282	1 <b>7</b> 92	NP135	1829	NP94
	1719	NM95	1 <b>7</b> 56	NN29	1793	NP137	1830	NP96
	1720	NM99	1 <b>7</b> 57	NN295	1 <b>7</b> 94	NP156	1831	NQ25
25	1721	NN10	1 <b>7</b> 58	NN296	1 <b>7</b> 95	NP16	1832	NQ27
	1722	NN103	1 <b>7</b> 59	NN3	1796	NP162	1833	NQ28
	1723	NN104	1760	NN30	1 <b>7</b> 97	NP164	1834	NQ34
	1724	NN105	1761	NN310	1 <b>7</b> 98	NP176	1835	NQ45
	1725	NN106	1762	NN313	1799	NP180	1836	NQ82
30	1726	NN12	1763	NN314	1800	NP187	1837	NQ89
	1727	NN120	1764	NN316	1801	NP189	1838	NQ95
	1728	NN131	1765	NN320	1802	NP198	1839	NR117
	1729	NN134	1766	NN322	1803	NP206	1840	NR55
	1730	NN137	1767	NN323	1804	NP210	1841	NR65
35	1731	NN147	1768	NN326	1805	NP211	1842	NS115
	1732	NN149	1769	NN33	1806	NP214	1843	NS121
	1733	NN153	1770	NN34	1807	NP220	1844	NS138

	1845	NS197	1882	NT789	1919	O2	1956	PC442
	1846	NS202	1883	NT829	1920	O238	1957	PD125
	1847	NS236	1884	NT830	1921	O271	1958	PD212
	1848	NS58	1885	NU101	1922	O279	1959	PD233
5	1849	NS65	1886	NU130	1923	O328	1960	PD240
	1850	NS70	1887	NU14	1924	O336	1961	PD278
	1851	NT271	1888	NU177	1925	O394	1962	PD309
	1852	NT301	1889	NU232	1926	O395	1963	PD319
	1853	NT374	1890	NU34	1927	O406	1964	PD444
10	1854	NT382	1891	NU35	1928	O84	1965	PD456
	1855	NT385	1892	NU356	1929	P12	1966	PE113
	1856	NT392	1893	NV120	1930	P2	1967	PE115
	1857	NT393	1894	NV213	1931	P22	1968	PE126
	1858	NT394	1895	NW175	1932	P30	1969	PE128
15	1859	NT396	1896	NW68	1933	P35	1970	PE143
	1860	NT418	1897	NW84	1934	P39	1971	PE159
	1861	NT428	1898	NX135	1935	P405	1972	PE163
	1862	NT429	1899	NX154	1936	P459	1973	PE166
	1863	NT430	1900	NY178	1937	P53	1974	PE172
20	1864	NT432	1901	NY226	1938	P78	1975	PE182
	1865	NT441	1902	NZ1	1939	P8	1976	PE186
	1866	NT444	1903	NZ101	1940	P9	1977	PE19
	1867	NT45	1904	NZ149	1941	PA85	1978	PE190
	1868	NT453	1905	NZ187	1942	PB15	1979	PE204
25	1869	NT457	1906	NZ190	1943	PB165	1980	PE205
	1870	NT512	1907	NZ229	1944	PB166	1981	PE213
	1871	NT528	1908	NZ345	1945	PB60	1982	PE223
	1872	NT53	1909	NZ77	1946	PC201	1983	PE227
	1873	NT533	1910	NZ85	1947	PC262	1984	PE23
30	1874	NT678	1911	O117	1948	PC335	1985	PE246
	1875	NT698	1912	O12	1949	PC349	1986	PE247
	1876	NT730	1913	O131	1950	PC379	1987	PE251
	1877	NT732	1914	O14	1951	PC381	1988	PE256
	1878	NT733	1915	O140	1952	PC41	1989	PE261
35	1879	NT742	1916	O177	1953	PC410	1990	PE262
	1880	NT746	1917	O185	1954	PC424	1991	PE272
	1881	NT780	1918	O199	1955	PC425	1992	PE286

	1993	PE287	2030	PE622	2067	PG117	2104	PJ193
	1994	PE293	2031	PE642	2068	PG195	2105	PJ196
	1995	PE299	2032	PE645	2069	PG284	2106	PJ212
	1996	PE301	2033	PE650	2070	PG330	2107	PJ239
5	1997	PE308	2034	PE659	2071	PG371	2108	PJ26
	1998	PE318	2035	PE673	2072	PG394	2109	PJ265
	1999	PE338	2036	PE676	2073	PG397	2110	PJ299
	2000	PE340	2037	PE677	2074	PG457	2111	PJ311
	2001	PE363	2038	PE678	2075	PH148	2112	PJ314
10	2002	PE383	2039	PE691	2076	PH174	2113	PJ317
	2003	PE399	2040	PE70	2077	PH226	2114	PJ323
	2004	PE400	2041	PE727	2078	PH60	2115	PJ350
	2005	PE403	2042	PE738	2079	PH79	2116	PJ356
	2006	PE416	2043	PE750	2080	PH92	2117	PJ365
15	2007	PE430	2044	PE765	2081	PI13	2118	PJ372
	2008	PE443	2045	PE768	2082	PI191	2119	PJ375
	2009	PE47	2046	PE776	2083	PI198	2120	PJ414
	2010	PE480	2047	PE777	2084	PI231	2121	PJ422
	2011	PE482	2048	PE78	2085	PI25	2122	PJ433
20	2012	PE503	2049	PE789	2086	PI279	2123	PJ439
	2013	PE505	<b>20</b> 50	PE80	2087	PI323	2124	PJ46
	2014	PE512	2051	PE806	2088	PI40	2125	PJ463
	2015	PE518	2052	PE807	2089	PI62	2126	PJ471
	2016	PE526	2053	PE808	2090	PJ1	2127	PJ488
25	2017	PE540	2054	PE817	2091	PJ11	2128	PJ495
	2018	PE541	2055	PE834	2092	PJ130	2129	PJ496
	2019	PE546	2056	PE840	2093	PJ132	2130	PJ502
	2020	PE549	2057	PE842	2094	PJ14	2131	PJ518
	2021	PE551	2058	PE843	2095	PJ142	2132	PJ525
30	2022	PE564	2059	PE862	2096	PJ145	2133	PJ53
	2023	PE565	2060	PE91	2097	PJ154	2134	PJ544
	2024	PE567	2061	PF146	2098	PJ157	2135	PJ546
	2025	PE571	2062	PF231	2099	PJ161	2136	PJ78
-	2026	PE574	2063	PF291	2100	PJ167	2137	PJ8
35	2027	PE584	2064	PF296	2101	PJ172	2138	PJ95
	2028	PE585	2065	PF3	2102	PJ181	2139	PK100
	2029	PE615	2066	PF375	2103	PJ186	2140	PK103

	2141	PK106	2178	PK558	2215	PL207	2252	PL491
	2142	PK114	2179	PK561	2216	PL208	2253	PL501
	2143	PK123	2180	PK594	2217	PL211	2254	PL506
	2144	PK133	2181	PK598	2218	PL214	2255	PL507
5	2145	PK147	2182	PK613	2219	PL251	2256	PL512
	2146	PK155	2183	PK65	2220	PL268	2257	PL52
	2147	PK175	2184	PK655	2221	PL27	2258	PL554
	2148	PK177	2185	PK66	2222	PL296	2259	PL559
	2149	PK185	2186	PK676	2223	PL307	2260	PL566
10	2150	PK198	2187	PK696	2224	PL317	2261	PL567
_	2151	PK206	2188	PK702	2225	PL328	2262	PL572
	2152	PK224	2189	PK727	2226	PL33	2263	PL587
	2153	PK234	2190	P <b>K7</b> 53	2227	PL335	2264	PL594
	2154	PK240	2191	P <b>K7</b> 99	2228	PL340	2265	PL599
15	2155	PK242	2192	PK80	2229	PL354	2266	PL60
	2156	PK259	2193	PK817	2230	PL358	2267	PL603
	2157	PK262	2194	PK819	2231	PL36	2268	PL614
	2158	PK264	2195	PK829	2232	PL360	2269	PL658
	2159	PK266	2196	PK831	2233	PL369	2270	PL664
20	2160	PK267	2197	PK855	2234	PL378	2271	PL67
	2161	PK271	2198	PK857	2235	PL385	2272	PL673
	2162	PK284	2199	PK864	2236	PL386	2273	PL69
	2163	PK317	2200	PK878	2237	PL391	2274	PL701
	2164	PK326	2201	PL104	2238	PL409	2275	PL71
25	2165	PK332	2202	PL105	2239	PL414	2276	PL719
	2166	PK335	2203	PL106	2240	PL42	2277	PL725
	2167	PK359	2204	PL110	2241	PL421	2278	PL730
	2168	PK366	2205	PL111	2242	PL433	2279	PL741
2.0	2169	PK398	2206	PL125	2243	PL434	2280	PL747
30	2170	PK405	2207	PL146	2244	PL44	2281	PL750
	2171	PK430	2208	PL157	2245	PL445	2282	PL751
	2172	PK436	2209	PL159	2246	PL455	2283	PL765
	2173	PK457	2210	PL16	2247	PL457	2284	PL772
2.5	2174	PK473	2211	PL164	2248	PL461	2285	PL773
35	2175	PK474	2212	PL189	2249	PL463	2286	PL776
	2176	PK503	2213	PL19	2250	PL464	2287	PL784
	2177	PK551	2214	PL205	2251	PL486	2288	PL803

	2289	PL830	2326	PM260	2363	PM516	2400	PM783
	2290	PL845	2327	PM275	2364	PM523	2401	PM789
	2291	PL85	2328	PM289	2365	PM524	2402	PM790
	2292	PL87	2329	PM297	2366	PM527	2403	PM801
5	2293	PL89	2330	PM303	2367	PM529	2404	PM803
	2294	PM1	2331	PM305	2368	PM53	2405	PM812
	2295	PM103	2332	PM306	2369	PM537	2406	PM830
	2296	PM105	2333	PM310	2370	PM545	2407	PM840
	2297	PM110	2334	PM314	2371	PM546	2408	PM841
10	2298	PM113	2335	PM323	2372	PM554	2409	PM842
	2299	PM126	2336	PM34	2373	PM562	2410	PM843
	2300	PM129	2337	PM347	2374	PM579	2411	PM849
	2301	PM136	2338	PM362	<b>237</b> 5	PM583	2412	PM854
	2302	PM141	2339	PM371	2376	PM596	2413	PM96
15	2303	PM142	2340	PM385	2377	PM6	2414	PO12
	2304	PM144	2341	PM387	2378	PM601	2415	PO30
	2305	PM150	2342	PM39	2379	PM605	2416	PO36
	2306	PM158	2343	PM393	2380	PM623	2417	PO42
	2307	PM161	2344	PM397	2381	PM624	2418	PO72
20	2308	PM170	2345	PM4	2382	PM627	2419	PP1
	2309	PM173	2346	PM40	<b>2383</b> :	PM633	2420	PP10
	2310	PM180	2347	PM404	2384	PM672	<b>242</b> 1	PP101
	2311	PM182	2348	PM412	2385	PM681	2422	PP110
	2312	PM19	2349	PM413	2386	PM692	2423	PP117
25	2313	PM195	2350	PM415	2387	PM696	2424	PP128
	2314	PM198	2351	PM42	2388	PM697	2425	PP131
	2315	PM200	2352	PM421	2389	PM717	2426	PP133
	2316	PM202	2353	PM430	2390	PM722	2427	PP136
	2317	PM21	2354	PM434	2391	PM738	2428	PP138
30	2318	PM213	2355	PM446	2392	PM741	2429	PP163
	2319	PM217	2356	PM455	2393	PM749	2430	PP165
	2320	PM229	2357	PM46	2394	PM753	2431	PP173
	2321	PM243	2358	PM476	2395	PM758	2432	PP175
	2322	PM245	2359	PM482	2396	PM767	2433	PP194
35	2323	PM248	2360	PM503	2397	PM769	2434	PP210
	2324	PM249	2361	PM51	2398	PM776	2435	PP212
	2325	PM256	2362	P <b>M</b> 514	2399	PM782	2436	PP216

	2437	PP219	2474	PP393
	2438	PP224	2475	PP395
	2439	PP226	2476	PP398
	2440	PP227	2477	PP407
5	2441	PP23	2478	PP411
	2442	PP230	2479	PP413
	2443	PP233	2480	PP422
	2444	PP242	2481	PP428
	2445	PP243	2482	PP430
10	2446	PP244	2483	PP451
	2447	PP245	2484	PP454
÷	2448	PP255	2485	PP457
	<b>244</b> 9	PP260	2486	PP46
	2450	PP261	2487	PP469
15	2451	PP267	2488	PP47
	2452	PP276	2489	PP482
	2453	PP292	2490	PP487
	2454	PP297	2491	PP5
	<b>24</b> 55	PP299	2492	PP509
20	2456	PP303	2493	PP51
	2457	PP308	2494	PP517
	2458	PP314	2495	PP525
	2459	PP321	2496	PP54
	2460	PP325	2497	PP60
25	2461	PP330	2498	PP7
	2462	PP332	2499	PP71
	2463	PP337	2500	PP80
	2464	PP345		
	2465	PP35		
30	2466	PP356		
	2467	PP367		
	2468	PP379		
	2469	PP386		
	2470	PP387		
35	2471	PP389		
	2472	PP390		
	2473	PP392		

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The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "AA239" would have been isolated from a human fetal kidney library (i.e., selection "AA") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

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As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, et al., Bio/Technology 10, 773-778 (1992) and in R.S. McDowell, et al., J. Amer. Chem. Soc. 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed full-length polynucleotide (preferably those deposited with ATCC) in a suitable

mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

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The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene, in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided.

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The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, Trends Pharmacol. Sci. 15(7): 250-254; Lavarosky et al., 1997, Biochem. Mol. Med. 62(1): 11-22; and Hampel, 1998, Prog. Nucleic Acid Res. Mol. Biol. 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, Bioessays 14(9): 629-633; Zwaal et al., 1993, Proc. Natl. Acad. Sci. USA 90(16): 7431-7435; Clark et al., 1994, Proc. Natl. Acad. Sci. USA 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour et al., 1988, Nature 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614, 396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention

can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

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In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle ed., Methods in Enzymology 266: 460-480; Altschul et al., 1990, Basic local alignment search tool, Journal of Molecular Biology 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, Nature Genetics 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, Proc. Natl. Acad. Sci. USA 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site ftp://blast.wustl.edu/blast/executables. The complete suite of search programs (BLASTP, BLASTN, BLASTN, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTN, TBLASTN and

TBLASTX — the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

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Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example, Pan troglodytes, Gorilla gorilla, Pongo pygmaeus, Hylobates concolor, Macaca mulatta, Papio papio, Papio hamadruas, Cercopithecus aethiops, Cebus capucinus, Aotus trivirgatus,

Sanguinus oedipus, Microcebus murinus, Mus musculus, Rattus norvegicus, Cricetulus griseus, Felis catus, Mustela vison, Canis familiaris, Oryctolagus cuniculus, Bos taurus, Ovis aries, Sus scrofa, and Equus caballus, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, Ann. Rev. Genet. 22: 323-351; O'Brien et al., 1993, Nature Genetics 3:103-112; Johansson et al., 1995, Genomics 25: 682-690; Lyons et al., 1997, Nature Genetics 15: 47-56; O'Brien et al., 1997, Trends in Genetics 13(10): 393-399; Carver and Stubbs, 1997, Genome Research 7:1123-1137; all of which are incorporated by reference herein).

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The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

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	Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp)‡	Hybridization Temperature and Buffer <sup>†</sup>	Wash Temperature and Buffer <sup>†</sup>
	. А	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
	В	DNA:DNA	<50	T <sub>B</sub> *; 1xSSC	T <sub>B</sub> *; 1xSSC
5	С	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
	D	DNA:RNA	<50	T <sub>D</sub> *; 1xSSC	T <sub>D</sub> *; 1xSSC
	E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
	F	RNA:RNA	<50	T <sub>F</sub> *; 1xSSC	T <sub>F</sub> *; 1xSSC
	G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
10	Н	DNA:DNA	<50	T <sub>H</sub> *; 4xSSC	T <sub>H</sub> *; 4xSSC
,	I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
	J	DNA:RNA	<50	T <sub>j</sub> *;4xSSC	T <sub>j</sub> *; 4xSSC
	К	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
	L	RNA:RNA	<50	T <sub>L</sub> *; 2xSSC	T <sub>L</sub> *; 2xSSC
15	М	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
	N	DNA:DNA	<50	T <sub>N</sub> *; 6xSSC	T <sub>N</sub> *; 6xSSC
	. 0	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
	P	DNA:RNA	<50	T <sub>P</sub> *; 6xSSC	T <sub>P</sub> *; 6xSSC
	Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
20	R	RNA:RNA	<50	T <sub>R</sub> *; 4xSSC	T <sub>R</sub> *; 4xSSC

t: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

†: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH<sub>2</sub>PO<sub>4</sub>, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

 $^*T_B - T_R$ : The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature  $(T_m)$  of the hybrid, where  $T_m$  is determined according to the following equations. For hybrids less than 18 base pairs in length,  $T_m(^\circ C) = 2(\# \text{ of } A + T \text{ bases}) + 4(\# \text{ of } G + C \text{ bases})$ . For hybrids between 18 and 49 base

pairs in length,  $T_m(^{\circ}C) = 81.5 + 16.6(\log_{10}[Na^{\circ}]) + 0.41(\%G+C) - (600/N)$ , where N is the number of bases in the hybrid, and [Na $^{\circ}$ ] is the concentration of sodium ions in the hybridization buffer ([Na $^{\circ}$ ] for 1xSSC = 0.165 M).

Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

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The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2501, SEQ ID NO:2502, or SEQ ID NO:2503 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end. Similarly, sequences such as SEQ ID NO:2504, SEQ ID NO:2505, or SEQ ID NO:2506 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2501 through SEQ ID NO:2506 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1

from nucleotide 25 to nucleotide 291, where the total number of nucleotides (N) in SEQ ID NO:1 is 316, and N-25 equals 291. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

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A number of types of cells may act as suitable host cells for expression of the protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from in vitro culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include Saccharomyces cerevisiae, Schizosaccharomyces pombe, Kluyveromyces strains, Candida, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include Escherichia coli, Bacillus subtilis, Salmonella typhimurium, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, e.g., Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

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Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

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The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

# **USES AND BIOLOGICAL ACTIVITY**

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

#### Research Uses and Utilities

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The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as porbes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtractout" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

# 25 <u>Nutritional Uses</u>

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Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

# Cytokine and Cell Proliferation/Differentiation Activity

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A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations. Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for T-cell or thymocyte proliferation include without limitation those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Bertagnolli et al., J. Immunol. 145:1706-1712, 1990; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Bertagnolli, et al., J. Immunol. 149:3778-3783, 1992; Bowman et al., J. Immunol. 152: 1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon γ, Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., J. Exp. Med. 173:1205-1211, 1991; Moreau et al., Nature 336:690-692, 1988; Greenberger et al., Proc.

Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F., Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

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# Immune Stimulating or Suppressing Activity

A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune disorders. More specifically, infectious diseases causes by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitis, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

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Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), e.g., preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (e.g., B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal. Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, Science 257:789-792 (1992) and Turka *et al.*, Proc. Natl. Acad. Sci USA, 89:11102-11105 (1992). In addition, murine models of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

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Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor: ligand interactions of B lymphocyte antigens can be used to inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythmatosis in MRL/lpr/lpr mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

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Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (e.g., sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected ex vivo with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

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like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (e.g., a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and  $\beta_2$  microglobulin protein or an MHC class II  $\alpha$  chain protein and an MHC class II  $\beta$  chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide having the activity of a B lymphocyte antigen (e.g., B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

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Immunol. 137:3494-3500, 1986; Bowmanet al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype switching (which will identify, among others, proteins that modulate T-cell dependent antibody responses and that affect Th1/Th2 profiles) include, without limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick, M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others, proteins that generate predominantly Th1 and CTL responses) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins expressed by dendritic cells that activate naive T-cells) include, without limitation, those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260, 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264, 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others, proteins that prevent apoptosis after superantigen induction and proteins that regulate lymphocyte homeostasis) include, without limitation, those described in: Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell 66:233-243, 1991; Zacharchuk, Journal of Immunology 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

## Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating 15 various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either in-vivo or ex-vivo (i.e., in conjunction with bone marrow transplantation or with peripheral 30 progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. Cellular Biology 15:141-151, 1995; Keller et al., Molecular and Cellular Biology 13:473-486, 1993; McClanahan et al., Blood 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In Culture of Hematopoietic Cells. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., Proc. Natl. Acad. Sci. USA 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In Culture of Hematopoietic Cells. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., Experimental Hematology 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In Culture of Hematopoietic Cells. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In Culture of Hematopoietic Cells. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In Culture of Hematopoietic Cells. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

### **Tissue Growth Activity**

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A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

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Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendonor ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors ex vivo for return in vivo to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

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It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, <u>Epidermal Wound Healing</u>, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

## Activin/Inhibin Activity

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A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins and are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin  $\alpha$  family, may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- $\beta$  group, may be useful as a fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986; Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

## Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

### Hemostatic and Thrombolytic Activity

A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

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#### Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in:Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

# Anti-Inflammatory Activity

Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

### **Tumor Inhibition Activity**

In addition to the activities described above for immunological treatment or prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis), by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

### 25 Other Activities

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A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or caricadic cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

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# **ADMINISTRATION AND DOSING**

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A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

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antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunolgobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

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When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 µg to about 100 mg (preferably about 0.1ng to about 10 mg, more preferably about 0.1 µg to about 1 mg) of protein of the present invention per kg body weight.

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The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, et al., FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

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Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorbtion of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- $\alpha$  and TGF- $\beta$ ), and insulin-like growth factor (IGF).

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The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

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to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy. Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

# TABLE 3

<u>Sel.</u>	<u>Species</u>	<u>Stage</u>	<u>Tissue</u>	Cell Type	<u>Treatment</u>
AA	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AC	Human	Adult	Placenta	26yrs., 1 specimen	None
AD	Mouse	Fetal	Embryo	ES cells	LIF
AE	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AF	Mouse	Fetal	Brain	N/A	None
AG	Mouse	Fetal	Brain	N/A	None
AH	Mouse	Fetal	Thymus .	N/A	None
AJ	Human	Adult	Testes	10-61yrs., pool of 11	None
AK	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AM	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AN	Mouse	Adult	Bone Marrow	Stromal cell line FCM-4	None
AO	Mouse	Adult	Thymus	N/A	None
AP	Human	Adult	Placenta	26yrs., 1 specimen	None
AQ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AR	Human	Adult	Retina	16-75yrs., pool of 76	None
AS	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
AT	Human	Adult	Blood	Lymphocytes+Dendritic Ce	ells MLR
AU	Human	Adult	Testes	10-61yrs., pool of 11	None
ΑV	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AW	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AX	Human	Adult	Testes	10-61yrs., pool of 11	None
AY	Human	Adult	Retina	16-75yrs., pool of 76	None
AZ	Human	Adult	Colon	Adenocarcinoma Caco2	None
BB	Human				None
	Truman	N/A	Blood	Adult PBMC/TH1or2	TH1or2 driven response
BC	Mouse	N/A Fetal	Blood Embryo	Adult PBMC/TH1or2 ES cells	
BC BD	•				TH1or2 driven response
	Mouse	Fetal	Embryo	ES cells	TH1or2 driven response
BD	Mouse Human	Fetal Fetal	Embryo Kidney	ES cells 19-23wks., M/F pool of 5	TH1or2 driven response LIF None
BD BG	Mouse Human Human	Fetal Fetal Adult	Embryo Kidney Brain	ES cells 19-23wks., M/F pool of 5 N/A	TH1or2 driven response LIF None None
BD BG BH	Mouse Human Human Human	Fetal Fetal Adult Adult	Embryo Kidney Brain Ovary	ES cells 19-23wks., M/F pool of 5 N/A PA-1 Teratocarcinoma	TH1or2 driven response LIF None None RA or Activin or None
BD BG BH BI	Mouse Human Human Human	Fetal Fetal Adult Adult Fetal	Embryo Kidney Brain Ovary Kidney	ES cells 19-23wks., M/F pool of 5 N/A PA-1 Terratocarcinoma 19-23wks., M/F pool of 5	TH1or2 driven response LIF None None RA or Activin or None None
BD BG BH BI BJ	Mouse Human Human Human Human	Fetal Fetal Adult Adult Fetal Adult	Embryo Kidney Brain Ovary Kidney Ovary	ES cells 19-23wks., M/F pool of 5 N/A PA-1 Teratocarcinoma 19-23wks., M/F pool of 5 PA-1 Teratocarcinoma	TH1or2 driven response LIF None None RA or Activin or None None RA or Activin or None
BD BG BH BI BJ	Mouse Human Human Human Human Human	Fetal Fetal Adult Adult Fetal Adult Adult Adult	Embryo Kidney Brain Ovary Kidney Ovary Testes	ES cells 19-23wks., M/F pool of 5 N/A PA-1 Teratocarcinoma 19-23wks., M/F pool of 5 PA-1 Teratocarcinoma 10-61yrs., pool of 11	TH1or2 driven response LIF None None RA or Activin or None None RA or Activin or None None
BD BG BH BI BJ BL BN	Mouse Human Human Human Human Human Human	Fetal Fetal Adult Adult Fetal Adult Adult Adult Adult Adult	Embryo Kidney Brain Ovary Kidney Ovary Testes Placenta	ES cells 19-23wks., M/F pool of 5 N/A PA-1 Teratocarcinoma 19-23wks., M/F pool of 5 PA-1 Teratocarcinoma 10-61yrs., pool of 11 26yrs., 1 specimen	TH1or2 driven response LIF None None RA or Activin or None None RA or Activin or None None None None

BT	Human	Adult	Blood	РВМС	None
BV	Human	Adult	Brain	N/A	None
BZ	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
С	Human	Adult	Blood	PBMC	conA + PMA
CA	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
CC	Human	Adult	Brain	N/A	None
CJ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
CI.	Human	Adult	Retina	16-75yrs., pool of 76	None
CIR	Human	Adult	Testes	10-61yrs., pool of 11	None
D	Human	Adult	Blood	PBMC	conA + PMA
DD	Human	Adult	Testes	10-61yrs., pool of 11	None
DG	Human	Adult	Placenta	26yrs., 1 specimen	None
DH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DI	Human	Adult	Testes	10-61yrs., pool of 11	None
DL	Human	Adult	Brain	N/A	None
DO	Human	Adult	Testes	10-61yrs., pool of 11	None
DP	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
DU	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DY	Human	Adult	Brain	N/A	None
DZ.	Human	Adult	Testes	Teratocarcinoma NCCIT	None
EF	Human	Adult	Liver	N/A	None
EK	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
EM	Human	Fetal	Kidney	N/A	None
EN	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FE	Human	Adult	Brain	N/A	None
FH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FQ	Human	Adult	Testes	10-61yrs., pool of 11	None
FT	Chicken	Fetal	Fetal Lung	Fetal Lung	N/A
FU	Chicken	Fetal	Limb Bud	Fetal St. 23 Limb Bud	N/A
FZ	Human	Adult	Placenta	26yrs., 1 specimen	None
G	Human	Adult	Blood	PBMC	conA + PMA
GA	Human	Adult	Testes	10-61yrs., pool of 11	None
GC	Human	Adult	Testes	10-61yrs., pool of 11	None
GE	Human	Adult	Brain	N/A	None
GJ	Mouse	Adult	Spleen	N/A	IL-12
GL	Mouse	Adult	Lymph Node	N/A	IL-12
GW	Chicken	26	Limb Bud	Fetal St.26 Limb Bud	N/A

GZ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
Н	Human	Adult	Blood	PBMC	PHA+PMA+MLR
HB	Human	Fetal	Kidney	N/A	None
HE	Human	Adult	Testes	10-61yrs., pool of 11	None
HL	Human	Fetal	Kidney	N/A	None
HR	Human	Adult	Brain	N/A	None
HS	Human	Adult	Brain	N/A	None
HV	Human	Adult	Testes	10-61yrs., pool of 11	None
HX	Human	Adult	Brain	Hippocampus	None
IB	Human	Fetal	Carcinoma	NTD2-1	None
ΙE	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
IF	Human	Adult	Uterus	N/A	None
IJ	Human	Adult	Blood	РВМС	GCSF in vivo
IK	Human	Adult	Retina	Retinoblastoma Y79	None
IR	Human	Adult	Brain	Hippocampus	None
IS	Human	Adult	Trachea	N/A	None
IT	Human	Adult	Brain	Thalamus	None
IU	Human	Adult	Thyroid	N/A	None
IW	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
IX	Human	Adult	Brain	N/A	None
ΙΥ	Human	Adult	Brain	N/A	None
IZ	Human	Adult	Brain	N/A	None
J	Human	Adult	Blood	PBMC	PHA+PMA+MLR
JΑ	Human	Adult	Retina	16-75yrs., pool of 76	None
JB	Human	Adult	Retina	16-75yrs., pool of 76	None
JF	Human	Adult	Retina	16-75yrs., pool of 76	None
JK	Human	Fetal	Kidney	N/A	None
JL	Human	Fetal	Kidney	N/A	None
JM	Human	Adult	Testes	10-61yrs., pool of 11	None
JN	Human	Adult	Retina	16-75yrs., pool of 76	None
JQ	Human	Adult	Testes	10-61yrs., pool of 11	None
JS	Human	Adult	Testes	10-61yrs., pool of 11	None
JT	Human	Adult	Retina	16-75yrs., pool of 76	None
JW	Human	Adult	Testes	10-61yrs., pool of 11	None
JΥ	Human	Adult	Testes	10-61yrs., pool of 11	None
JZ	Human	Adult	Retina	16-75yrs., pool of 76	None
K .	Mouse	Adult	Bone Marrow	Adult Stromal cell line FCM	1-4 None

KA	Human	Adult	Testes	10-61yrs., pool of 11	None
KB	Human	Adult	Retina	16-75yrs., pool of 76	None
KG	Human	Adult	Testes	10-61yrs., pool of 11	None
KH	Human	Adult	Testes	10-61yrs., pool of 11	None
KI	Human	Adult	Retina	Retinoblastoma Y79	None
KJ	Human	Fetal	Brain	N/A	None
KL	Human	Adult	Brain	N/A	None
KM	Human	Adult	Retina	Retinoblastoma Y79	None
KN	Human	Adult	Blood	РВМС	GCSF in vivo
KO	Human	Adult	Uterus	N/A	None
KP	Human	Adult	Retina	16-75yrs., pool of 76	None
KQ	Human	Adult	Retina	16-75yrs., pool of 76	None
KR	Human	Adult	Retina	16-75yrs., pool of 76	None
KS	Human	Adult	Retina	16-75yrs., pool of 76	None
KT	Human	Adult	Retina	16-75yrs., pool of 76	None
KU	Human	Adult	Retina	16-75yrs., pool of 76	None
KV	Human	Adult	Retina	16-75yrs., pool of 76	None
KW	Human	Adult	Retina	16-75yrs., pool of 76	None
KX	Human	Adult	Retina	16-75yrs., pool of 76	None
KY	Human	Adult	Retina	16-75yrs., pool of 76	None
KZ	Human	Adult	Retina	16-75yrs., pool of 76	None
L	Mouse	Adult	Thymus	N/A	None
LC	Human	Adult	Retina	16-75yrs., pool of 76	None
LE	Human	Adult	Retina	16-75yrs., pool of 76	None
LF	Human	Adult	Spinal Cord	N/A	None
LG	Human	Adult	Testes	N/A	None
LH	Human	Fetal	Liver	N/A	None
Ц	Human	Adult	Brain	N/A	None
LJ	Human	Fetal	Carcinoma	NTD2-1	None
LK	Human	Fetal	Carcinoma	NTD2-1	None
LL	Human	Adult	Thyroid	N/A	None
LN	Human	Adult	Uterus	N/A	None
LO	Human	Adult	Thyroid	N/A	None
LP	Human	Adult	Blood	PBMC	GCSF in vivo
LR	Human	Adult	Lymph Node	N/A	None
LS	Human	Adult	Brain	Substantia Nigra	None
LT	Human	Adult	Retina	Retinoblastoma Y79	None

LU	Human	Adult	Retina	Retinoblastoma Y79	None
LV	Human	Adult	Thyroid	N/A	None
LW	Human	Fetal	Carcinoma	NTD2-1	None
LX	Human	Fetal	Kidney	N/A	None
LZ	Human	Adult	Uterus	N/A	None
M	Human	Adult	Neural	Glioblastoma line T98G	None
MA	Human	Fetal	Carcinoma	NTD2-1	None
MB	Human	Adult	Spinal Cord	N/A	None
MC	Human	Adult	Thyroid	N/A	None
MD	Human	Fetal	Kidney	N/A	None
ME	Human	Adult	Brain	Substantia Nigra	None
MF	Human	Fetal	Kidney	N/A	None
MG	Human	Adult	Brain	Hippocampus	None
МН	Human	Adult	Brain	Thalamus	None
MI	Human	Adult	Spinal Cord	N/A	None
MJ	Human	Adult	Lymph Node	N/A	None
MK	Human	Adult	Testes	N/A	None
ML	Human	Adult	Brain	Caudate Nucleus	None
MM	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MN	Human	Adult	Brain	Hippocampus	None
MP	Human	Adult	Testes	N/A	None
MQ	Human	Adult	Testes	N/A	None
MR	Human	Adult	Testes	N/A	None
MS	Human	Adult	Testes	N/A	None
MT	Human	Adult	Testes	N/A	None
MU	Human	Adult	Testes	N/A	None
MX	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MY	Human	Fetal	Brain	N/A	None
MZ	Human	Adult	Spinal Cord	N/A	None
N	Rat	Fetal	Pancreas	N/A	None
NA	Human	Adult	Brain	Corpus Callosum	None
NB	Human	Adult	Spinal Cord	N/A	None
NC	Human	Adult	Prostate	N/A	None
ND	Human	Adult	Prostate	N/A	None
NE	Human	Adult	Brain	Hippocampus	None
NF	Human	Adult	Brain	Substantia Nigra	None
NG	Human	Adult	Brain	Hippocampus	None

NH	Human	Adult	Brain	Thalamus	None	
NHAB	Chicken	34	Limb Bud	Fetal St.34 Limb Bud	N/A	
NHAE	Mouse	Adult	Tumor	N/A	IL-12	
NHAG	Mouse	Adult	Bone Marrow	Dendritic Cells	LPS/gamma IFN	
NHAN	Mouse	Adult	Tumor	N/A	IL-12	
NHAW	Mouse	Adult	Bone Marrow	Dendritic Cells	Resting	
NI	Human	Adult	Thyroid	N/A	None	
NJ	Human	Adult	Pineal Gland	N/A	None	
NK	Human	Adult	Pineal Gland	N/A	None	
NL	Human	Fetal	Brain	N/A	None	
NM	Human	Adult	Blood	Erythroleukemia TF-1	None	
NN	Human	Adult	Kidney	293 embryonal carcinoma li	ne None	
NO	Human	Adult	Brain	Substantia Nigra	None	
NP	Human	Adult	Kidney	293 embryonal carcinoma li	ne None	
NQ	Human	Adult	Blood	Erythroleukemia TF-1	None	
NR	Human	Adult	Bone	RD-ES	None	
NS	Human	Adult	Retina	Retinoblastoma WERI-Rb1None		
NT	Human	Adult	Brain	Corpus Callosum	None	
NU	Human	Adult	Brain	Caudate Nucleus	None	
NV	Human	Adult	Brain	Thalamus	None	
NW	Human	Adult	Brain	Corpus Callosum	None	
NX	Human	Adult	Bone	RD-ES	None	
NY	Human	Adult	Brain	Substantia Nigra	None	
NZ	Human	Adult	Blood	Erythroleukemia TF-1	None	
О	Human	Adult	Blood	Dendritic Cells	None	
P	Mouse	Fetal	Embryo	ES cell embryoid bodies	6 days post LIF	
PA	Human	Adult	Bone	RD-ES	None	
PB	Human	Adult	Kidney	N/A	None	
PC	Human	Adult	Retina	Retinoblastoma WERI-Rb1N	Jone	
PD	Human	Fetal	Kidney	N/A	None	
PE	Human	Adult	Blood	ChronicMyelogenousLeuke	miaK562 None	
PF	Human	Adult	Thyroid	N/A	None	
PG	Human	Adult	Thyroid	N/A	None	
PH	Human	Adult	Colon	Adenocarcinoma Caco2	None	
PI	Human	Adult	Thyroid	N/A	None	
PJ	Human	Adult	Testis	Embryonal Carcinoma NT2	D1 RA for 23 days	
PK	Human	Fetal	Kidney	293 cell line	None	

PL	Human	Fetal	Kidney	293 cell line	None	
PM	Human	Fetal	Kidney	293 cell line	None	
PO	Human	Adult	Placenta	26yrs., 1 specimen	None	
PP	Human	Adult	Blood	LymphoblasticLeukemiaMe	OLT-4	None

# Table 3 Cell Type and Treatment Key:

conA: concanavalin A

GCSF: granulocyte-colony stimulating factor

INF: interferon

LIF: leukemia inhibitory factor

days post LIF: cells harvested number of days shown after LIF removal

LPS: lipopolysaccharide

MLR: mixed lymphocyte reaction

PBMC: peripheral blood mononuclear cells

PHA: phytohemagglutinin

PMA: phorbol myristate acetate

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

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SEQ ID NO:2474, SEQ ID NO:2475, SEQ ID NO:2476, SEQ ID NO:2477, SEQ ID NO:2478, SEQ ID NO:2479, SEQ ID NO:2480, SEQ ID NO:2481, SEQ ID NO:2482, SEQ ID NO:2483, SEQ ID NO:2484, SEQ ID NO:2485, SEQ ID NO:2486, SEQ ID NO:2487, SEQ ID NO:2488, SEQ ID NO:2489, SEQ ID NO:2490, SEQ ID NO:2491, SEQ ID NO:2492, SEQ ID NO:2493, SEQ ID NO:2494, SEQ ID NO:2495, SEQ ID NO:2496, SEQ ID NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16. SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEO ID NO:94, SEO ID NO:95, SEO ID NO:96. SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101. SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115.

SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:250, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEO ID NO:28, SEO ID NO:29, SEO ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46,

SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ

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or to a complement of said sequence.

- 5. An isolated protein encoded by an isolated polynucleotide of claim 1.
- An isolated protein encoded by an isolated polynucleotide of claim 2.

7. An isolated protein encoded by an isolated polynucleotide of claim 3.

8. An isolated protein encoded by an isolated polynucleotide of claim 4.

## SEQUENCE LISTING

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<213> Homo sapiens
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<221> unsure
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<211> 161
<212> DNA
<213> Homo sapiens
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2

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<212> DNA
<213> Homo sapiens
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ttgtgttttc ttttccaaac tgtatttcta aaatgtgtca atatctcttc cttttatttt 180
ttattttttg tagagacagg ggtctcactg tgctgcctag gctggtctca aactcctggc 240
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<210> 9
<211> 293
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (187)
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agtattactt ttatatgtca tttcagattt gtatgcatat tgcaagcaaa ttcatagtga 180
atttttnttt tttgagacag ggtctcactc ttttgcccag ggtggagtgc agtggcatga 240
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<210> 10
<211> 348
<212> DNA
<213> Komo sapiens
<400> 10
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tgcaccagga tototitatt ttgtacttag gotttgcttg ctccctcttt gotttagttt 180
catcatctgt gaaacaaagg ggttaggtta gaataagaaa tttccaaaga tctttctact 240
teteacagea egtggtgetg tgtegaggta aegteettta cataceteat gaagttagtg 300
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<210> 11
<211> 337
<212> DNA
<213> Homo sapiens
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cetetgette ceaggtteta geaattetee egeeteagee teceaagtag etgagaceae 240
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<210> 12
<211> 351
<212> DNA
<213> Homo sapiens
<400> 12
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coefficiency theoretical general general cagagggeneral acceptages 180
tataactcca gaatctacca aaacggggaa agtttccagc ccaactgtaa acatcagtgc 240
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<210> 13
<211> 331
<212> DNA
<213> Homo sapiens
<400> 13
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geacaatete ageteactge aacetetgte teeetggtte aagegattet eetgeeteag 240
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<210> 14
<211> 257
<212> DNA
<213> Homo sapiens
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<210> 15
<211> 293
<212> DNA
<213> Homo sapiens
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attttacttt acttattett ttgagacagg ttetegeact ceageetagg caacagagtg 180
agacteegte ceaateagte aateaateaa teaateaata eeacagegga gaaaatettt 240
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<210> 16
<211> 318
<212> DNA
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<400> 16
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atagcagaat ataaattatt tttgagctct cacagaactt tgctgagata cattataacc 180
tgggccataa aacaaacctc aaccaattaa tacagttgaa accagagtgt gctctctgac 240
cacagtagaa tcaaactatt aattagtaat ataataatga aaatctccac actcttaaaa 300
ataaacaaca tactcgag
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<210> 17
<211> 314
<212> DNA
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<213> Homo sapiens
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cctgtcaagt tcgtactctt tctaccttag tgtgagtcat ttaatttaag gtaggattqa 240
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<210> 18
<211> 534
<212> DNA
<213> Homo sapiens
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tctgtaaatg ttaaatagaa gagaggcatg aaatcatttc tgataaaaat agaagttaaa 180
tetgtgttaa agggttttgt ggeceettte teectagete tgteteteag etgaataggt 240
tgtgtcaggg agtgacaacg cagtggtgtg ttggtgctat ctgtgttgag tgaccggcaa 300
aagaccacaa aaggaaatct ttagtttccc ctccaagtct tgttctttac atgagagcat 360
aggaageete cagaagaett geatgateet agtattgagt eetettetat geatetatea 420
aagaaaatga gagaatttca gaggggctgg gattatttat ttatttattt atttatttta 480
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<211> 315
<212> DNA
<213> Homo sapiens
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aaactaagta ttattttaat ttcagggttt ttttgttttt gtttttttg tttctgtttt 180
tgtttctgtt tttttgagaa ggagtttcgc tcttgttgcc caggctggag tgcagtggcg 240
tggtctcggc tcactgcaac ctccgcctcc caggttcaag taaatctcct acctcagcct 300
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<210> 20
<211> 491
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (114)
<400> 20
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aaaaaaaaa aaaagagatg agtgaggttt ccctatgtta ccaaggctgg tcttgaactc 180
ctggcctcag gcagtcctcc cgcctcggcc tctcaaaaag cgctgggatt acaggcatga 240
gctaccagge etggecaagt ettttgtttt teetteette etteettett eettetett 300
tctttctttt ttaaaaaata gtatttagtt ttccaaacta agaccaagaa ctcttgctct 360
atataattat ttactatttc ctccatttaa ggttatatag tttttctttg aaaaaatttt 420
gtcattatca agttaaatta atacatctgt attttatgtt cttattacta ttacaactgg 480
tgtctctcga g
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<210> 21

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<211> 304
<212> DNA
<213> Mus musculus
<400> 21
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agtetttgta gagaaaacc ettttgtaca geatatagta gaateteaat acatggaatt 180
aagagaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatecace aaacgaagaa aatteatata cagteageta eegacagaca caccagaget 300
cgag
<210> 22
<211> 287
<212> DNA
<213> Mus musculus
<400> 22
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cocccatat gagageetee tggteeeet cetgggeeat etggettagg tgeettacae 120
tggttgcatt catttctcca agagaagttc atgttctcac atgtaggatt aggacacttc 180
cagtetecag etegttgetg tectecacet ceaecacete caetggggaa tecteceegg 240
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<210> 23
<211> 303
<212> DNA
<213> Mus musculus
<400> 23
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tttatttgac ttacatteec aggecattet ttttgtttgt ttgtttggtt ttttttgttg 180
ttgttgttgt ttttccagga tagtcagggc tacacagaga aaccetgtct tgaaaaacta 240
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<210> 24
<211> 155
<212> DNA
<213> Mus musculus
<400> 24
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<210> 25
<211> 401
<212> DNA
<213> Mus musculus
<400> 25
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gcccattgaa gctggaagta acttttacca tgttcctttg agagcccccc gggctataag 120
ctcccacttt agatcacage agaaggetga gtggttettt ccatteecce atcagaatae 180
aagtgttcac agcagaggtc aaaactttgc tattaaatac ctccaaccct ggagatttta 240
ttcaagggaa agattcacaa gatgttcagc aactcctcag cagtatcacc cgaatggacc 300
atttgggaga tcacagagac aggettetee tgtacagace cateetaaga gcaggeagat 360
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<211> 495
<212> DNA
<213> Mus musculus
<400> 26
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gccactgtct taactggaag ctcaaaagac ccatgctctt cctggtctcc agcagtccca 240
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ctgggcaatg gttccttcat tgagcacctc ccaggccggc tgaaggaggg ccacacaagt 420
cgcgagcaca ggaacacaag cacctggctg cacagggcct tggtgctgga acaactgagc 480
cccacccaac tcgag
<210> 27
<211> 321
<212> DNA
<213> Mus musculus
<400> 27
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ggagaagttg gtcggccagc ttgtaaaaat catacaacca tggaagccgt cctcaaagtg 240
gtccaaggtc acgttcacac ccgcactctc caagcgcttg gcgtacatga tcccatcgtc 300
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ccgcaggacg tcgtgctcga g
<210> 28
<211> 343
<212> DNA
<213> Mus musculus
<400> 28
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ggatgctatt ttagaggcag atactgagtt ctggatttca gtctgttgtg aattcagtgt 180
ccagcatcag gtccagagct tgatgcatat cctccactac ctagaaaaagc tgccagagga 240
aaaggaagaa gccacctcca agacagtatc tactaagagt gaagtacaag atgaaatgtt 300
gccagttttt aaggtggacg ctcacacaaa caagcagctc gag
<210> 29
<211> 504
<212> DNA
<213> Mus musculus
<400> 29
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gtcaacaccc ggtgcaagct tgaggtgtcc aacttccagc agccatacat cgtcaaccgc 240
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etcaacttca ccctggaaga cgttctgctc ccccagtcag acaggttcca gccctacatg 420
caggaggtgg tgcctttcct gaccaaactc agcaatcagc tcagctcctg tcagatcagc 480
ggtgacgacc agaacaaact cgag
<210> 30
<211> 428
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<213> Mus musculus
<400> 30
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cagaagcaat tacaacagag cagcaatcac tgtctacttt aatcacaccg tcgttatatg 180
ttacaactga ttctcaaaac acagcaggga atgctttgag tcagacaaca agattcaaga 240
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tcaacaactc cttgcctcaa acatcaccat ctgggttcac tttgaccaat cagccatcac 420
                                                                 428
<210> 31
<211> 360
<212> DNA
<213> Mus musculus
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<211> 343
<212> DNA
<213> Mus musculus
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aaaagcccac agctttcagg caacctgtct ggtcagagtg gaacttcagt cttacaccc 300
caacagaccc tecatecege aggaaacace ecegaetete gag
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<211> 599
<212> DNA
<213> Mus musculus
<400> 33
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ctcagagaca gaagcaatta caacagagca gcaatcactg tctactttaa tcacaccgtc 180
gttatatgtt acaactgatt ctcaaaacac agcagggaat gctttgagtc agacaacaag 240
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aacaccaget gtttatgtet etteaagece aettaettat aacattacca gacaageaga 360
atcagcggtc aacaactcct tgcctcaaac atcaccatct gggttcactt tgaccaatca 420
gccatcacct tetacetata attetactgg acaaccacca aaacatettg tetatactte 480
cacacaacag ccaccatcac ctgctcctac ctcttctggg aaaaccagaa gtagagtcta 540
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<210> 34
<211> 363
<212> DNA
<213> Mus musculus
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 ttgtacccta cetecgaaat cacagtgeac ataatgeeec tagttaccga geetgtgtee 180
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ttgacctttt tatggatccc agettettte agatggatge ttcctgtgtt agtcactgga 300
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gag
<210> 35
<211> 139
<212> DNA
<213> Mus musculus
<400> 35
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<211> 284
<212> DNA
<213> Mus musculus
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teteattett eegggeatgg getttetgta geeteactat eeteteaate ageatggett 180
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<210> 37
<211> 494
<212> DNA
<213> Mus musculus
<400> 37
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tgctactcat ttggattgct cttttaataa actcttcttg tataggaatg aaatcaccag 180
gagaacaget ggtgtgcctg ccaccagtgg aggcetttee taatgateee egggteatea 240
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ggactaccga ggaggacact gtaacagcag gtcaggcgat ggcagtggaa gagcagtgtg 360
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<210> 38
<211> 317
<212> DNA
<213> Mus musculus
<400> 38
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acttgtcagt tgtttttatt aaacttatgt tccatgtaca gtgctgccag gttcctgccc 180
aggagtcagt cagaggagca tggcttttcc ttctgggttc attagctttg ctgttagcca 240
acaccaacac tcatttcacg atggcttttg tccttgtcca agtgtccccc tgtgccccag 300
catcacaagc actcgag
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<211> 362
<212> DNA
 <213> Mus musculus
<400> 39
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atttatcaga aaaaagtctc agaatttgtg aaaaaaaaata gtaaaagaaa aggggataga 180
gacaaatgat tototttta ttaatttatt tattoacttt atatootgat cgaagcootc 240
ctecteccag teccaetece ectagtecat etetecagta etectetget teteagagaa 300
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<210> 40
<211> 318
<212> DNA
<213> Mus musculus
<400> 40
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gcacaagtcc aaagtcggaa caggattcgg gaattctgga tgtggaagac gaggaagatg 180
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tytyaaytte taaaaaygga aaggatetye gtytytetyy teatttaaac acatatteay 240
ttctgtgtac tctagagttt gacggtctgt atatttttca ggcagccaag ccaagttatt 300
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tgtgttttca atttgtattt tcacaactgc ttccttttct atggctcctg ttcatatctc 480
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<210> 42
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<212> DNA
<213> Mus musculus
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gaageagetg geegeetggt getetetggt tetgteette tgeegeetge acaaacagte 180
cagcatgacg gtgatggaag cccaggagag cccgcttttc aacaacgtca agctacagcg 240
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cgag
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 <213> Mus musculus
<400> 43
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aggatececa gegecagggg acagtgeeca gggggeetgg ggteeeggag ggagteetgg 180
gatetgaagg geattegatt gtgagegeec aggeagagge geagaggegg etgtacaeag 240
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<210> 44
<211> 322
<212> DNA
<213> Mus musculus
<400> 44
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cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
ggtccaaggt cacgttcaca cccgcactct ccaagcgctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag
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<211> 451
<212> DNA
<213> Mus musculus
<400> 45
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ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
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catgccgtac acgttcggag gggggaccaa gctggaaata aaacgggctg atgctgcacc 420
aactgtatcc atcttcccac caccactcga g
<210> 46
<211> 350
<212> DNA
<213> Mus musculus
<400> 46
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getetaaggt gggagttata aaggaggtga atgtgageee atgteecace gatecetgte 180
agetgeacaa aggeeagtee tacagtgtea acateacett taccagegge acteagteec 240
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<210> 47
<211> 449
<212> DNA
<213> Mus musculus
<400> 47
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tgtctgcatc tccaggggag aaggtcacaa tgacttgcag ggccagetca agtgtaagtt 180
acatgcactg gtaccagcag aagccaggat cetececcaa accetggatt tatgccacat 240
ccaacctgge ttctggagtc cctgctcgct tcagtggcag tgggtctggg acctcttact 300
ctctcacaat cagcagagtg gaggctgaag atgctgccac ttattactgc cagcagtgga 360
gtagtaaccc gtggacgttc ggtggaggca ccaagctgga aatcaaacgg gctgatgctg 420
caccaactgt atccatcttc ccactcgag
<210> 48
<211> 555
<212> DNA
<213> Mus musculus
<400> 48
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tatgttacaa ctgattctca aaacacagca gggaatgctt tgagtcagac aacaagattc 180
aagaacattt ettetggaca geaageatea eetgeeeaaa teaeteetga acaageaaca 240
ccagctgttt atgtctcttc aaccccactt acttataaca ttaccagaca agcagaatca 300
geggteaaca acteettgee teaaacatea ecatetgggt teaetttgae caateageea 360
teacetteta ectataatte taetggaeaa eeaceaaaac atettgteta taetteeaca 420
caacagccac catcacctgc tcctacctct tctggaaaac cagaagtaga gtctactcat 480
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ccaccccaac tcgag
<210> 49
<211> 328
<212> DNA
<213> Mus musculus
<400> 49
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ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
tettegteet ggagteecat eeegattete eageagtgge tatggeaeag attttgtttt 300
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<210> 50
<211> 304
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (143)
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cctgaacatc cccaactttc aantgactga tgatattgat gaggtgcgat gggtaaggag 180
gggcaccctg gtcgcagagt ttaaaaggaa gaagccacct tttttgatat cagaaacgta 240
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<210> 51
<211> 436
<212> DNA
<213> Mus musculus
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gagagaccca ggaatcgcca atgggttcag actaatctct gtgagcagct tctgtgtgtg 180
tgacctggcc aatgacaaca gcatcgagaa cacctccctg gcgggcagca actttgggat 240
tgtggattcc ctaggcgagc tggaagcctt aatggaaagg atgaaaaggc ttcaggaaga 300
cagggaagat gacgaqacca ctcgggaaga aatgaccacg cgttttgaga aggaaaagaa 360
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<210> 52
<211> 285
<212> DNA
<213> Mus musculus
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atgcctgaaa atgggcacag cagtgctgtg taacattgaa tctgagatgt cacctaggga 180
aagacacatt ccgatttgaa agatagtcga taggaaagaa aacaagccat ggtcatgggc 240
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<210> 53
<211> 448
<212> DNA
<213> Mus musculus
<400> 53
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taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cetgttetae tggggtecaa agecaatgtg tgtaccaaga ggetgeagat 360
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<210> 54
<211> 449
<212> DNA
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<400> 54
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taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatetet eeagatteet teegtagget gaaccatetg gaagaaateg atttaagatg 300
caattgtgta cctgttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agetttaagt ggactetetg acttaaaage cetttacetg gatggaaace 420
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<210> 55
<211> 476
<212> DNA
<213> Mus musculus
<400> 55
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acggagagaa accggctgac cagggtcatc aagctcactc tccaagtcct ctagaacagc 300
cactgectee tetecattet etgggtgatg etetegaace caagtetgta geteettggg 360
taggatggca acaaactgct ccaaaactac cagctccagt atctgctcct ttgtgtgtgt 420
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<210> 56
<211> 393
<212> DNA
<213> Mus musculus
<220>
<221> unsure
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<222> (226)
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tggataactt aaagcatgeg agggagttat tgeetaaggt gaggenaegt etagaagaea 240
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<211> 484
<212> DNA
<213> Mus musculus
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cctcctgggc acatgaatgg aatatgctat aacaagctat agtaagacca ggcacacatt 180
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atgcagtget cagacacata taggeteace ateacaagaa catggeecac agaateatet 360
gaggeacatt ttacctaaca gttggtacag atgacttggg cagtgtcttt tggtagatat 420
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<210> 58
<211> 554
<212> DNA
<213> Mus musculus
<400> 58
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egecegegtg etteteatea geaagetgte etgtgtggge atetggatge tggeeetett 180
cetetecate eeggagetge tetacagegg cetecagaag aacageggeg aggacaeget 240
gagatgetea etggteagtg eccaagtgga ggeettgate accatecaag tggeecagat 300
ggtttttggg ttcctagtgc ctatgctggc tatgagttct gctactcatt atcatccgta 360
cettgeteca ggcacgeaac tttgagegga acaaggecat caaggtgate attgeegtgg 420
tggtagtett catagtette cagetgeeet acaatggggt ggteetgget cagacggtgg 480
ccaacttcaa catcaccaat agcagctgcg aaaccagcaa gcagctcaac attgcctatg 540
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                                                              554
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<211> 322
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<211> 390
<212> DNA
<213> Mus musculus
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gaattgaaat tgtagacagt tgtgatctgc catgtgggtg ctggggaatca aacctgggtc 240
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<210> 61
<211> 483
<212> DNA
<213> Mus musculus
<400> 61
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gtcgattatg tgttggttat tttcggagga gtgattggct attccgggga cgatatcaac 420
aagtteetet ggatggteag gatagetgaa ggggageate eeaaagacat eeggeagete 480
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<211> 189
<212> DNA
<213> Mus musculus
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<210> 63
<211> 456
<212> DNA
<213> Mus musculus
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ggatgtaaag etteetgttg taacteeage gaggttettg tagtgetace atcaaateet 420
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<211> 330
<212> DNA
<213> Mus musculus
<400> 64
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tteettttea gecagettet cageetggee tgeetggaee agetgeaace gettetgeae 180
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cacteggate cactegttgg acatggeett getgaageee acettgeege tgggeaggtg 300
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<211> 358
<212> DNA
<213> Mus musculus
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<212> DNA
<213> Mus musculus
<400> 66
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<213> Mus musculus
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caacgtgacc gaggtgccga ccacgaccac caaagtggtc ccgacgacgc aaatgcccac 180
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<210> 68
<211> 304
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<213> Mus musculus
<400> 68
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ccagaaaata tttgttatag taactttcag caagcacatc gtggagcaga tggtgacttt 180
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<213> Mus musculus
<400> 69
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ttttatgttc ttatgatggc ttataataga ttttttgaga tcagttttaa ttcctccttt 180
tgaaataact gggtatttaa atttaaagtt ttctttttaa aataattatg tgcagtgtct 240
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gegtetacae teetggette ttgagtagaa ggeacaaaee tttatteeet ttetagetet 480
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egtteetaet gtettgetgt geetagagea gtggeaggee aggegteeag getgetteea 600
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<211> 304
<212> DNA
<213> Mus musculus
<400> 70
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tgctatgcaa atagtccaga ttcagttatg gctggctaca ttattcagta acttcccaac 120
aggtagcaca aatatteett atggaaaaag eecaggactg tteagtagtt eeteetgtae 180
ggagggetet gggaagagge ageteaetgg agageetaea tteettaeae aagtgeeaet 300
cgag
<210> 71
<211> 474
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (20)
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tacatgtgca ataatgagtg tgatgcgagt acccctgaac tggcacaccc tcctgagctg 360
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<212> DNA
<213> Mus musculus
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cagagaagtt gagagaccac agagagtgtc tggtagctga ctgagtatac tggacatctg 480
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tggcattttt ttggtaaact cgag
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<211> 422
<212> DNA
<213> Mus musculus
<400> 74
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<211> 388
<212> DNA
<213> Mus musculus
<400> 75
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tectgecate ettetaataa cagggaggaa gggagaaata gtecaggaaa cegggtatet 240
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<211> 525
<212> DNA
<213> Mus musculus
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<221> unsure
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<400> 76
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gcagttggat ctcaatttga gtttggtgca aaggttgttt atacctgtga tgatgggtat 420
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<210> 77
<211> 263
<212> DNA
<213> Mus musculus
<400> 77
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tcagactgtc ttgatagcaa tatagtgagt tttaaagtca gctagtacaa gaattctaga 180
tgtattctcc ttcttttgta ttatattggc tatttttggt actcctgtct gcttccttca 240
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<210> 78
<211> 437
<212> DNA
<213> Mus musculus
<400> 78
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gaggagtttt cttcgaaagc tcagtaaccc gatttcactg ccaagacgga ttcaggctga 300
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<211> 456
<212> DNA
<213> Mus musculus
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tecteteege agggetetga getecaegge tggegeeeee aagtggaetg tgteegggee 240
aatgagetgt gtgeggetga atceaactge ageteeaggt acegeaceet teggeagtge 300
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<210> 80
<211> 574
<212> DNA
<213> Mus musculus
<400> 80
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tttgcaatca cctcagcttt ctgttcttaa tcccacaagt ctagagccgt ctcagccaca 480
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eccaetttea ageteceeet etgaetetet egag
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<211> 384
<212> DNA
<213> Mus musculus
<400> 81
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caaggtcctg tgggttgcac cagaaaaggc catcaatttt ccccttgcct gtaatttaac 180
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<210> 82
<211> 535
<212> DNA
<213> Mus musculus
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 gaagggactt gactatagac tecatggtgg ageaggtgat ccagatttet ettacagggg 300
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<212> DNA
<213> Mus musculus
<400> 83
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taacatagtt gtacattate titgeagitg etitgagitt tattittat tattiaaaac 360
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<210> 84
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<212> DNA
<213> Mus musculus
<400> 84
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<210> 85
<211> 144
<212> DNA
<213> Mus musculus
<400> 85
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<210> 86
<211> 379
<212> DNA
<213> Mus musculus
<400> 86
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<210> 88
<211> 372
<212> DNA
<213> Mus musculus
<400> 88
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aaagataatg gtgacatcaa gtttctgact aaaggagata ataatgaagt cgatgataga 360
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<211> 436
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (354)
<400> 89
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<212> DNA
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ctatatggaa gcatcgacag tggactgtaa tgatttaggg cttttaaact tcccagccag 240
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<211> 306
<212> DNA
<213> Mus musculus
<400> 91
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gtggacattc aaagcctgct tggttccctg caggaccaca catgctgctg cactcactcc 240
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<211> 344
<212> DNA
<213> Mus musculus
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<210> 93
<211> 530
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (30)
<220>
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23

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 <222> (69)
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<211> 644
<212> DNA
<213> Mus musculus
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<221> unsure
<222> (191)
<400> 94
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<213> Mus musculus
<400> 95
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<212> DNA
<213> Mus musculus
<400> 96
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<210> 97
<211> 597
<212> DNA
<213> Mus musculus
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<221> unsure
<222> (144)
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<400> 97
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<211> 556
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (16)
<220>
<221> unsure
<222> (82)
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<221> unsure
<222> (104)
<220>
<221> unsure
<222> (136)
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<221> unsure
<222> (223)
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<222> (331)
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ccaacagaat gtggtgcaga accagacacc tgtgatgata gagattggaa ccagcttgct 480
gaaccagaca gcagcacaaa ctcggaaact gactgatgtg gaagcccaag tactaaacca 540
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<211> 380
<212> DNA
<213> Mus musculus
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<222> (14)
<400> 99
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tggcccgcca ggtcaggtgc caccacctca tagccgagtc gcacaaagaa gtctagetgc 180
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<213> Mus musculus
<400> 106
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<212> DNA
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<211> 307
<212> DNA
<213> Homo sapiens
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<400> 117
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<211> 304
<212> DNA
<213> Homo sapiens
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<212> DNA
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<212> DNA
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34

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acagaataat cctcaggtct gcccctacaa tctctatgct gagcagctct caggatcggc 240
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<211> 185
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<213> Homo sapiens
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tggcaccttg catttagetg catggetetg cagetette actaaacteg ag
<210> 131
<211> 445
<212> DNA
<213> Homo sapiens
<400> 131
gaatteggee aaagaggeet agcaatacat teaataacat aactaaagaa cagaggeeag 60
gcacagtggc tcacgcctat aatgttttaa ggcactctgt attacctttt tgcatttctt 120
gagaaagact gtctaaagaa aaccacctga taaatgatga ataaatattt ttaatgaatc 180
tgtaggaaaa aagattactc ttaaaatgat ctacatttga aaaatttcaa tacattcaat 240
aacataacta aagaacagag gccaggcaca gtggetcacg cctataatcc cagcactttg 300
gaaggctgag atgggcggat caagaggtca ggtgttcaag accagcctga ccaatatggt 360
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gaaaccctgt ctctactaaa aatacaaaaa tcagccagtc atggtggtgc gcacctgtag 420
tcccagctac ttgagaggac tcgag
<210> 132
<211> 450
<212> DNA
<213> Homo sapiens
<400> 132
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aactaaagca aattgaacag gaaaaaaaaa aagaagatgg gttttttaag tccaatatat 120
gttattttct tctttttgg agtcaaagta cattgccaat atgaaactta tcagtgggat 180
gaagactatg accaagagcc agatgatgat taccaaacag gattcccatt tcgtcaaaat 240
gtagactacg gagtteettt teateagtat aetttagget gtgteagtga atgettetgt 300
ccaactaact ttccatcatc aatgtactgt gataatcgca aactcaagac tatcccaaat 360
attecgatge acatteagea actetacett eagtteaatg aaattgagge tgtgactgea 420
aattcattca tcaatgcaac ccatctcgag
<210> 133
<211> 322
<212> DNA
<213> Homo sapiens
<400> 133
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tgtttacaca atgagagtga tgctttcatt ctttatcccc aaaccaatca ggatcagatt 120
tgcaaactca tcaggaaaaa atggaagaaa agggagtcct ctgaaatcaa gacttttcta 180
ctgcttcagt aacattaaaa ataaacagct aggagaggtt tttttgtttt tgtttttgtt 240
tgtttttggc ttggggagtg tgggtggaag ggggttgtct aaatggtgtg caaggaaaat 300
caatacccaa ctaacactcg ag
<210> 134
<211> 422
<212> DNA
<213> Homo sapiens
<400> 134
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tetgaggeca gaaaaggaag gggtttgeet teetetagta tttattette tggactacat 120
caagtactct aagcctgatg ttaggcaata actgcccatt agccattggc tacatttgcc 180
tetttettgt tecaacaata ttagtgatet gtggtacagg acacactett tgtttgetag 240
ctacaaattc taacaaagct aagttttatt catgtagtta ttcacaaatt aaaacaacac 300
acacacaca cacacacaca cacacacaca cacacacaca cacacacata ccacaaaacc 360
cagagatcac caaatactat ataaataaac aagcccaaag tcacagatca gggacactcg 420
ag
<210> 135
<211> 308
<212> DNA
<213> Homo sapiens
<400> 135
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agttggtttt cttgcttcca tacttcctcc tataaactgc tcttagcaca gcagccaaag 120
cagtgaaaat aattaagctc atgccacttc tetgtegaag ceteetttgg etatgegttt 180
tgctcaggga aagctggatc ccttacaatg ttgtacaggc cctacacaat ctgatccctg 240
ttacttctga ggctttatct ccaagtgccc ttctcctcgc tcactctact cagccacacc 300
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aactcgag
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<210> 136

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<211> 298
<212> DNA
<213> Homo sapiens
<400> 136
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tttttccacc ctgttttctt ccatatttac tgaagctcag aagcagtatt gggtctgcaa 120
ctcatccgat gcaagtattt catacaccta ctgtgataaa atgcaatacc caatttcaat 180
taatgttaac ccctgtatag aattgaaagg atccaaagga ttattgcaca ttttctacat 240
tccaaggaga gatttaaagc aattatattt caatctctat ataactgtca acctcgag 298
<210> 137
<211> 372
<212> DNA
<213> Homo sapiens
<400> 137
gaatteggee aaagaggeet accetettga ceceetaggt ttgattgeee ttteeecgaa 60
acaactatca tgagcgcgag gctgccggtg ttgtctccac ctcggtggcc gcggctgttg 120
ctgctgtcgc tgctcctgct gggggcggtt cctggcccgc gccggagcgg cgctttctac 180
etgeceggee tggegeeegt caacttetge gaegaagaaa aaaagagega egagtgeaag 240
gccgaaatag aactatttgt gaacagactt gattcagtgg aatcagttct tccttatgaa 300
tacacagegt ttgatttttg ccaageatea gaaggaaage geecatetga aaatettggt 360
caggegeteg ag
                                                                   372
<210> 138
<211> 190
<212> DNA
<213> Homo sapiens
<400> 138
gaatteggee aaagaggeet aetgtettaa agaatttett cetttggttt attteatett 60
tctactaggt cttttccttc agaattcaca cttgccctat tgtctcccat tttgaaaacc 120
ctgtcctttg acctgcatat tttctgttgc tgtcatgttt ttctattctc tttcacaggc 180
attactcgag
                                                                   190
<210> 139
<211> 204
<212> DNA
<213> Homo sapiens
<400> 139
gaattcggcc aaagaggcct acgagccggc agttgacatt tccaaatata aaatcgtgca 60
ttacagatge tetetggatt geccagattt etgttecaac geageeactt tecattitta 120
ttttttatta ttettttgaa acagagtett getetgteac ecaggetgga ggeaggteta 180
gaattcaatc gggttctccc tata
                                                                   204
<210> 140
<211> 329
<212> DNA
<213> Homo sapiens
<400> 140
gaatteggee aaagaggeet ageagtgage tgagataaeg ceagtgeatt ceageetggg 60
cgacagggtg agactettga etaaacaaca acaaaaacaa caacaacaaa attaggaata 120
gagatotogt titgagagaa titgagacot gitatotott agtittigoo tittitocot 180
ctateteaga ggaageeaat atetaetgtt tgatgttage tatetttaae ateatttta 240
aaaaaaccct attattagga agtatggtag atatatttaa atttttaccc ttctttttgc 300
taactgaaaa tatatgcgta gccctcgag
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<210> 141
<211> 344
<212> DNA
<213> Homo sapiens
<400> 141
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tggatggtac cattcatgct ttattactca tacgaaaatt tcggctttat ccttgactct 120
coeffective contacceae atcocattag tetetateta grattitata taaccatece 180
cteateteca tteetactee etttaceeta tgaaggeeet caccattett teeactagtt 240
attgttatag cttgttaact gtttttattc tcctgtctca agtctcattt tgctccaata 300
taacttccat atttttgcca aaacaatctg tctatacact cgag
<210> 142
<211> 330
<212> DNA
<213> Homo sapiens
<400> 142
gaattcggcc aaagaggcct aatgtaacaa acctgcacgt tgtgcacagg taccctagaa 60
cttaaagtat aatttaaaaa aaaaattttt tttaagtata aacccaaaac aactgtctta 120
aaatacagtg actcaaaata catgccccaa tgagtaggta ctcccaaatc tggctaatca 180
ctggaatgac ctaagaaccc tttttttcag tcctgataga ctctatctcc agggctagag 240
gcctaggcat ctgcatttta aagttcccca catgagtctt acggccaggc aagtttagga 300
accccagett aatgtatetg ttgtetegag
<210> 143
<211> 275
<212> DNA
<213> Homo sapiens
<400> 143
gaattcggcc aaagaggcct aatctgagtt tgtttttcaa agatcactaa attttagtta 60
tgattatatc acattttcca aaatgtgtgg cagtttttgc cctccttgct ctgagtgttg 120
gtgcactgga cacttttatt gctgcagtat atgagcatgc ggtgatatta ccaaacagaa 180
cagaaacacc tgtttcaaaa gaagaagett tgctcctgat gaacaagaac atagatgttt 240
tggagaaagc agttaagctg gcagctttac tcgag
<210> 144
<211> 290
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (152)
gaatteggee aaagaggeet actagaeetg ceacaagtee aaacteetag etttaatttt 60
gagtgttttt aacaaactgg cototgttta toattgttto ttotagtact tococaagga 120
tgattgtace etcagcacte aagacegett gntgtteece tacacacttt ttgtteaage 180
tgtttgtttt acctggaatg ctgtctttgc accttcttcc tggacctggt tcactcttgt 240
tgcccaggct ggagtgcaat ggcgcgatct cggcacactg caacctcgag
<210> 145
<211> 386
<212> DNA
<213> Homo sapiens
<400> 145
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gaatteggee aaagaggeet acagagagee tgagaccaae ccagaaacca ccacctetea 60
egecaaaget cacacettea geetecaaca tgaaggtete egeageactt etgtggetge 120
tgctcatage agttgccttc agcccccagg ggctcgctgg gccagcttct gtcccaacca 180
cctgctgctt taacctggcc aataggaaga taccccttca gcgactagag agctacagga 240
gaatcaccag tggcaaatgt ccccaqaaaq ctqtqatctt caaqaccaaa ctggccaaqq 300
atatatgtgc cgaccccaag aagaagtggg tgcaggattc catgaagtat ctggaccaaa 360
aatctccaac cccaaaccca ctcgag
<210> 146
<211> 133
<212> DNA
<213> Homo sapiens
<400> 146
gaatteggee aaagaggeet ageagtgaat ggeacatggt atgtatteaa tgaaegttea 60
acaaatettt gtttttatee ttattattat eetteettte caecetetee ttgetagaag 120
tcacaggete gag
<210> 147
<211> 197
<212> DNA
<213> Homo sapiens
<400> 147
gaatteggee aaagaggeet ageeagtatt gtaatetaca aetttttaaa atteaeteat 60
ctgtcaagaa gcccaagaac aatcacctct ctaagatett cagaatacaa aaaatgtatt 120
gttttaaggt ttttttttt ggttttttgt tttttggttt tttgagacaa ggtcttgctc 180
tgtcacccag tctcgag
<210> 148
<211> 446
<212> DNA
<213> Homo sapiens
<400> 148
gaattcggcc aaagaggcct agtttctggt ggtaaagaaa gatgaagacc tcttccggga 60
atggctgaaa gacacttgtg gcgccaacgc caagcagtcc cgggactgct tcggatgcct 120
tegagagtgg tgegaegeet tettgtgatg etetetggga ageteteaat eeceageeet 180
catccagagt ttgcagccga gtagggactc ctcccctgtc ctctacgaag gaaaagattg 240
ctattgtcgt acteacetec gacgtactec ggggtctttt gggagttttc teceetaace 300
atttcaactt tttttggatt ctcgctcttg catgcctccc ccgtcctttt tcccttgcca 360
gttccctggt gacagttacc agetttcctg aatggattcc cgccccatg cctctttggc 420
cgattgaatt ctagacctgc ctcgag
<210> 149
<211> 422
<212> DNA
<213> Homo sapiens
<400> 149
gaatteggee aaagaggeet aaaaagetea aettgaaget ttettgeetg cagtgaagea 60
gagagataga tattattcac gtaataaaaa acatgggctt caacctgact ttccaccttt 120
cctacaaatt ccgattactg ttgctgttga ctttgtgcct gacagtggtt gggtgggcca 180
ccagtaacta cttcgtgggt gccattcaag agattcctaa agcaaaggag ttcatggcta 240
atttecataa gacceteatt ttggggaagg gaaaaactet gactaatqaa gcatecacga 300
agaaggtaga acttgacaac tgtecttctg tgtetectta cetcagagge cagageaage 360
teatttteaa accagatete aetttggaag aggtacagge agaaaateee aagttteteg 420
aσ
                                                                  422
<210> 150
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<211> 300
<212> DNA
<213> Homo sapiens
<400> 150
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gcacataggg aatagaattc ataccagaat tttaggattt tattttacct tctaatatat 120
aattagttet aaatgtgtgt taaccetttt tteeeceaat ttaagggttt gtgtttteat 180
atcttatctt tttggattgc tcttataata atgaactctt cctgtatagg tatgaaatca 240
ccagaagaac aactggtgtg tgtgccacca caggaggcct ttcctaacga cgccctcgag 300
<210> 151
<211> 374
<212> DNA
<213> Homo sapiens
<400> 151
gaatteggee aaagaggeet atattattta cetetgttae eetgtaggte tetaaacttt 60
taagtagact tattttttaa aaagctacta tactcccttc tttctgaatc aaaaacattc 120
agagataaga attagatgga agtaaagete eetgtggttt gtgeteeate acaatttttt 180
ttttttttt tttttttt ttagtagagg cagggtttcc ccatgttggc caggctagtc 240
ttgaacteet gaceteaggt gateceeetg ceteggeete ceaaagtget gggattgeag 300
gggtgagcca ccacgcccag ccttcatcac agttttttat ggaaacagaa tacaaagcag 360
caaggcagct cgag
<210> 152
<211> 347
<212> DNA
<213> Homo sapiens
<400> 152
gaatteggee aaagaggeet aaaataagaa tatgaaaagt tgeteaatgt cattagetaa 60
ttgggaaatg caaattaata cctcaatgaa tatcactaca tacacaccag aatggccaaa 120
atttaaatga etgacaatat caagtgttgg tgaaaatgtg gaagatetga aatgeteata 180
cattgctggt aagaatgtaa aatggtacag acacattgga aaaataattt ggcaatttct 240
ttaaaagtta aacattactc aacaatgaaa atataatatt attgatacac agcaacttgg 300
aggaatetet aatgetttat actgagttga aagaagetag tetegag
                                                                   347
<210> 153
<211> 222
<212> DNA
<213> Homo sapiens
<400> 153
gaatteggee aaagaggeet attgaattet agaeetgeet egaattgtee aaggaattga 60
atggggaget ggtgcatttg tacactactt ctgttgctca ctgatgggca acagggcttt 120
tatececage etttecagge tgeecegggg agacagcage tatggggagg caccaaccca 180
tgggctgtac tcattccaga atccttcctc ccctcactcg ag
<210> 154
<211> 458
<212> DNA
<213> Homo sapiens
<400> 154
gaatteggee aaagaggeet ageetegagt gaettggatt ttagtggtat aaccacagaa 60
atgtgtttta cctttcaggc tgcaggaaat ctgcagccat tctcccagcc aagttcgaca 120
cctatettea ccaatatgeg tagaatteag gccaeggaga taacaageet ataccaetea 180
gaacagaaat ggtccttaat aatcatagaa tgattatgcc aaggaaatgg aaatccacaa 240
acaatectaa atctccttta aataagttac aatctcaccg ggcacggtgg ctcgtgcctg 300
```

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taatcccagc actttgggag actgaagcag gaagattgct tgagaccagg agtttgagac 360
 caccetggge aatatagcaa gaccegtete tgcaaaaaaa attaaaaact tagetggtgg 420
 tgggtgcctg taatcccaac tacccggtgg ggctcgag
 <210> 155
 <211> 353
<212> DNA
 <213> Homo sapiens
<400> 155
gaatteggee aaagaggeet atggaaaaca tgtteettea gtegteaatg etgaeetgea 60
ttttcctgct aatatctggt tcctgtgagt tatgcgccga agaaaatttt tctagaagct 120
atcettgtga tgagaaaaag caaaatgact cagttattge agagtgcage aatcgtcgae 180
tacaggaagt tececaaacg gtgggeaaat atgtgacaga actagacetg tetgataatt 240
tcatcacaca cataacgaat gaatcatttc aagggctgca aaatctcact aaaataaatc 300
taaaccacaa ccccaatgta cagcaccaga acggaaatcc cggtactctc gag
<210> 156
<211> 272
<212> DNA
<213> Homo sapiens
<400> 156
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gtgcatcctg ctatttcctc attatatgta tgtctaggtt tggtcaagac catgccaggt 120
caaaccttat ttggaatttc aaaacacgag aagaactgaa agatactctt gaatctgaaa 180
tgagagcatt taatattgac agagaacttg gaagtgcaaa tgtgatctcc tggaaccacc 240
atgagtttga ggttaaatat gagctgctcg ag
<210> 157
<211> 312
<212> DNA
<213> Homo sapiens
<400> 157
gaattcggcc aaagaggcct aaggtatata aaagtcctag cacagagcgt gtcatataat 60
atggetteae aagtaceete ateteettte eagtegtttt ttgtttttgt ttttgttttt 120
ttgagaccat ctcactctgt tgcccaggct ggagtgcctc ttcattttta tttctttatt 180
cagcaagtat tgatcaaatg tgctttgtac caggtactga gctcttcgtt gggatataat 240
ggtgatcaag gagattgtag attctggcag ggaaaactga catcaaacac gacgaccccg 300
acctgcctcg ag
<210> 158
<211> 445
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (68)
<400> 158
gaattcggcc aaagaggcct agtctgctat gctttagtag cattctgtgt gtctttttgt 60
caaagctntt aaaacgtatc attgtcctta ccaatcccca ctggactgta agcactctga 120
gaatgggcac tctttctttt ctgtcgccag tgtctggcac gtagtagctg ttcagtaatg 180
ctgagtatga caaactgtat tagtcatata gattaccaaa gtgtatcttg gcacctaaga 240
aaatgagtag gcaatgtgag gtgagtatac tttgaataat cttgaaatgc actacagtca 300
catatgcacg tatgatttct gttatttgga taattctgtt ggatgattat ttactatgtg 360
aaaatattgt cataaaatgt atgacacttt tattccttat tagattatgt tatatgtttc 420
atagaatgat accgcttttc tcgag
```

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<210> 159
 <211> 165
 <212> DNA
 <213> Homo sapiens
 <400> 159
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 ctcaggtctg ttttcctcaa agtgtggtcc tgggttcagg tgctcacatc ggaattacat 120
 aattgtgcaa aacttggact geeetgtgte eetagagace tegag
 <210> 160
 <211> 270
 <212> DNA
 <213> Homo sapiens
<400> 160
gaatteggee aaagaggeet agagtaataa gtactgggae aataacaact acatactaat 60
tattccaaac attaaagaac agaggttttt tgttttttgt tttctagtag aaaaacctaa 120
gtttagagtt cccaactttc attttttct aatataattg agcaaaagca caacaaaaat 180
gaatatatga tgttgatttt tgggctcatt ttatttttt cttcttttt tcccactcat 240
ggtactactg tgcattgtga caggctcgag
<210> 161
<211> 334
<212> DNA
<213> Homo sapiens
<400> 161
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cttaaggtct gccttaatag aaagcatcag ctggcttctg cattctgtcg acagggatat 120
gttggggttt ttttgttttt tgttgctgtt gttttttgag acggagtctt gctctgtcgc 180
ccaggctgga gtgcagtggc gctatctcgg ctcactgcaa gctccgcctc ccgggttcac 240
gecattetee tgeeteagee teeegagtag etgggaetae gggegtetge caccacacet 300
ggctaattat tttgtatttt tagtgggact cgag
<210> 162
<211> 180
<212> DNA
<213> Homo sapiens
<400> 162
gaattcggcc aaagaggcct actgaataac ataattgtgc cctttattaa gttgttacta 60
ttattatttg tggagacggg gtctcactct gctgccaggc tggagagcag tggcgtgatc 120
atageteact gegggeteaa gggateetee tgeeteagee eecagttgee aggaetegag 180
<210> 163
<211> 307
<212> DNA
<213> Homo sapiens
<400> 163
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aatgtetgtt egacaaaagg tgagegetga gtgtttgggg ttttttgttt gttttttgta 120
ttttttgaga cagggteteg etttgecace caggetggag tgeagtggtg cacacatgge 180
teactacage etetacetee egggeteaag ggateeteee aceteageet eccatgtage 240
tgggactaca ggtgtgcacc atcacaccca gctaattttt gtattttttg tagagacgga 300
actcgag
<210> 164
<211> 361
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<212> DNA
<213> Homo sapiens
<400> 164
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attettteat tgeteatett ttgeettttt caaaatgagg ttgaccacag atgagtetag 120
ggaggggaat gacgtgggga tcgtgacttc tgcaggggta gtcttttcca cttttccct 180
gtocatotgt tittictict tottitotit tittotgaaa gagactotog cictgitgee 240
caggetagag tgcagtggca cgatcatage teaetgcage etecaaetee tgggegeagg 300
tgatcctcct gcctcagctc ctgagtggct gggacaaacg gcacatgtca ccactctcga 360
<210> 165
<211> 357
<212> DNA
<213> Homo sapiens
<400> 165
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tetettettt agteattace eetgtttttg gtteatteet ateagtaaac aatetetggt 120
agagacttgg taagaaaact caaccattcc cttaaaaaaa gtcagcctct accccttcct 180
tagccagatg cttcagggat ggtctgcttg caacacttcc tgtccttcac cttctttcaa 240
etgtttaacc tgccttattc tttttttgt gagacggagt cttgctctgt ctcccaqgct 300
ggagtgcagt ggcgcatgtt ggctcactgc aagctctgcc tcccgggttc actcgag
<210> 166
<211> 149
<212> DNA
<213> Homo sapiens
<400> 166
ctcgaggatg tgccgtactg cctttaatat gtgcatgagt tactcatggg gaaaatgcct 60
tecetttett tetttataet tittititt tittgagatg aagtiteaet eitgteaeee 120 . ....
agactcgagg caggtctaga attcaatcg
                                                                  149
<210> 167
<211> 410
<212> DNA
<213> Homo sapiens
<400> 167
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ctgttttaaa aggttaataa ctgttgattc aattttctaa tagatacaga tctattcaga 120
ttattgatat agtttcttta atagttaaca ggtttgttca ggttatctgt ttttctttgt 180
gagaactttg gtagattgtg tctttcacag aatattggct tatttcatct tactaaattt 240
ttggtgtaca gagttgttca tagtattcct ttgttgtact tttaatgtac ttggggataag 300
taatgatgac coctetteca titigttacat tagtaatitg tgeettetet ettittette 360
ttttgttttt ttggagacaa agagtctcac tgtcacccag gcgactcgag
<210> 168
<211> 369
<212> DNA
<213> Mus musculus
<400> 168
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tgcagtttgg ttcttctgga gtattttcat catttagcta ttggaataca attatgaaaa 180
ccaactgttg aacatacttg gagtagctgt ttctttccta aagaaccaaa gttgttttca 240
gctaatagaa caggttgaag teegeetgea ttagetgtgt ttteeeteat ettgttagag 300
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<211> 455
<212> DNA
<213> Mus musculus
<220>
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<222> (29)
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<222> (38)
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<222> (423)..(425)
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<222> (444)
<400> 169
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ttggacattt taaaagccat ttctcaagct ttaagacatt tagtacagcc tttgcagtgc 180
tcagcagagg cgcgaatgca agcagaggcg cggccatgag gtcggtgtcc gacactggcc 240
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cgtgcacggt gccttgggag agcatgggct ggtcctgcag gactctgcat ctcactgtga 360
ctgtgcagca cattttaggc tgtgtttgaa tgtctcacnn nntactgntt agttgtcgaa 420
tgnnngaatc caagaaggag ctgngccagg tcgag
<210> 170
<211> 358
<212> DNA
<213> Homo sapiens
<400> 170
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ggtttttaaa tetegtttet ettggaeaag cacagggate tegtteteet eattttttgg 180
gggtgtgtggg ggacttetca ggtcgtgtcc ccagcettet etgcagtece ttetgccetg 240
ccgggcccgt cgggaggcgc catggctcgg atgaaccgcc cggccccggt ggaggacctg 300
aagaagtacg gggctaccac tgtggtgcgt gtgtgtgaag tgacctatga ctctcgag 358
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45

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<212> DNA
<213> Homo sapiens
<400> 171
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gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc cttggaataa 180
aatacgactt cotgagtacg teateceagt teattatgat ctettgatee atgeaaacet 240
taccacgetg accttetggg gaaccacgaa agtagaaatc acagccagtc ageccaccag 300
caccatcate etgeatagte accacetgea gatatetagg gecaceetea ggaagggage 360
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<210> 172
<211> 297
<212> DNA
<213> Homo sapiens
<400> 172
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tttggaccac tcagtttttt acttccaagc ataaaagtct atgaagataa agtgattaaa 180
gatgtttttt aaatgtgatt ttttaaaaag tgacattatc agtataatct atttcagcat 240
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<210> 173
<211> 267
<212> DNA
<213> Homo sapiens
<400> 173
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acattttcag atatgcgagt cettecaaaa tttateeett atgtaettge tetaaggaag 180
ctacttgatg tacaagcaaa gaaagtggaa gataatggaa tttgggaaat gggcacttca 240
acacaagatg acacgacctg cctcgag
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<210> 174
<211> 288
<212> DNA
<213> Homo sapiens
<400> 174
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aatcetetac teaccatget tecteetgee atteatttet ateteettee cettgeatge 120
atcctaatga aaagctgttt ggcttttaaa aatgatgcca cagaaatcct ttattcacat 180
gtggttaaac ctgttccagc acaccccagc agcaacagca cgttgaatca agccagaaat 240
ggaggcaggc atttcagtaa cactggactg gatcggaaaa cactcgag
<210> 175
<211> 430
<212> DNA
<213> Homo sapiens
<400> 175
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gcctgaaaat tcagcagaca tgattgaaga aggggagctt atcctatctg tgaatatctt 120
gtaccctgtt atatttcata agcacaaaga acacaaacca taccaaacaa tgctggtgtt 180
gggcagtcaa aaactcacac aactgaggga ttcaattcga tgtgtcagtg acctccagat 240
tggtggtgaa ttcagcaaca ctcctgacca agcccctgag cacatcagca aagtaaggtg 300
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gttcataaat gtcccagtaa atccttttct tctcctgcgg gattccatca aactaccaca 420
ctatctcgag
<210> 176
<211> 317
<212> DNA
<213> Homo sapiens
<400> 176
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gagacagaga tgctgcagct ccaggaggag aaccgtcgcc tgcagttcca gctggaccaa 180
atggactgca aggcetcagg getcagtgga gecegggtgg cetgggecca geggaacetg 240
tacgggatgc tacaggagtt catgctagag aatgagaggc tcaggaaaga aaagagccag 300
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ctgcagaata gctcgag
<210> 177
<211> 349
<212> DNA
<213> Homo sapiens
<400> 177
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gaacatcaag acceptgtgca catactggga ggatttccac agctgcacgg tcacagccct 240
tacggattgc caggaagggg cgaaagatat gtgggataaa ctgagaaaag aatccaaaaa 300
cctcaacatc caaggcagct tattcgaact ctgcggcagc tggctcgag
<210> 178
<211> 576
<212> DNA
<213> Homo sapiens
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ccatteteet ttateaatte eccetgetee aatacaacea ccacacattg cattaatace 180
ccaaacccat teccaattta ttaaatatgg tgeaagetea tagacaetta gaagaggeaa 240
atctagttgt gatgaagagt tcctagagct ctgggagcca agatggaggt tttccagtac 300
ctgcacatgt ggctcaggag gatgctgccc aggagctaat gagttgggag agcaaacatg 360
ggaggtagaa gtcagatggc ccagctcagg gagctatctc tctcagcatc tcagctttga 420
gactetgeca ecacetette ecageecaag etgetgecta aaceaggeat gttgaagggt 480
gagcagtggt tgccatgaag ccaagaccaa gagattgctg agactcccac tcccctccct 540
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<210> 179
<211> 320
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (57)
<400> 179
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agaattttac aattetetea tetgggttaa ggaaaacaat attgaggaat gtgatttgga 180
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aatgtacttc tccgttgaca aagaaattct aggtgaaatt aagagtcatg atctgaaacc 240
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tgagtggagg ttgtctcgag
<210> 180
<211> 583
<212> DNA
<213> Homo sapiens
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agtaacaact ctcgctgcaa ttttatttta atttgagaaa taaagatttc ctccaagcca 180
catgaggact ctggcaccca cccacaaagc aagacctgta tttataagcc gagggctcag 240
ggagectaac tgegggacec gteagggeee egtgacecat ceeegteeee acceeecet 300
ccaccgctgg gcccatcagt gtgtgttggg gggatgcttg gcagctgggg gtgaggagac 360
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ggaaatttet geecaggate teageeceag getggttgtt tetacaaate teteteaaat 480
gtattatttt ggtgacaaaa atgaaggage tttgtaaatt tttttaaaat tatgaatcat 540
atcaagtagt tgtttacatt tcttgaaaaa agagcaactc gag
<210> 181
<211> 280
<212> DNA
<213> Homo sapiens
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accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacetg acgatetaca atgcatatet aggatggaag aaagcacgae aagaaggagg 240
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<210> 182
<211> 280
<212> DNA
<213> Homo sapiens
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<221> unsure
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<400> 182
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accaattggt egaaaagatg aagcagatet tgcaaaatca getttggcca tggeggatte 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gntactcgag
                                                                  280
<210> 183
<211> 280
<212> DNA
<213> Homo sapiens
<400> 183
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ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag
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<210> 184
<211> 280
<212> DNA
<213> Homo sapiens
<400> 184
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ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag
<210> 185
<211> 280
<212> DNA
<213> Homo sapiens
<400> 185
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accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
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<210> 186
<211> 379
<212> DNA
<213> Homo sapiens
<400> 186
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gagetetttt agyyeaggee tggtggtgae aaaatetetg ageatttget tttttgtgaa 240
ggattttatt teteetteae ttatgaaget tagtttgget ggatatgaaa ttetggtttg 300
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<210> 187
<211> 327
<212> DNA
<213> Homo sapiens
<400> 187
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atggcacaaa attatgtaac cetttetate teecettggt gtaceteett aatcatactt 180
ctcagaacca ttgtcaataa tttgctggga gttcttctga tggttaccat cgtgactgat 240
agatttattt cccaggttca agcggttccc ctgcctcagc ctcccgagta tctgggacta 300
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<210> 188
<211> 379
<212> DNA
<213> Mus musculus
<400> 188
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aaactattaa tttttatgaa taatagaact teettetgag gttttgattt aateaagaag 120
aacctggaca ttttgttgct attatagtat gttctataat ttgaaagctg ccttacttca 180
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eccagteece ecteacacag ttecateece tgtetecaag ataatggeec ettaceaggt 300
ctccccactc cctggggtgt caagtetete aagggttagg tgcacatett cttccactga 360
gaccagaaca aggctcgag
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<211> 301
<212> DNA
<213> Mus musculus
<400> 189
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tgatggagtc tgtgttactc aggaggcagc agttattgtg gattctcaaa caaggaaagt 240
aaagaacaat ctttgcttac ccatctgccc tcctaatatt gaaagtatgg agtgcctcga 300
<210> 190
<211> 317
<212> DNA
<213> Mus musculus
<400> 190
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aggtagcaaa aggaaatcta agaaagatgt ttatacaatc tttgatgcag aggtggagag 120
cacaagtcca aagtcggaac aggattcggg aattctggat gtggaagacg aggaagatga 180
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<211> 295
<212> DNA
<213> Mus musculus
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<220>
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<222> (222)
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<222> (233)
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<222> (241)
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<221> unsure
<222> (245)..(246)
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<222> (249)..(250)
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<222> (253)
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agttccagga cagccagggc tacacagaga aatcntgtct cnaaaaacaa ganaganaga 240
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<211> 307
<212> DNA
<213> Mus musculus
<400> 192
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tgctccaggg ttctcagcac caatgggctc tgaccetece acttectgct gtttctctta 180
cacctcccgg cagettcaca gaagetttgt gatggattac tatgagacca gcagtetttg 240
ctecaageca getgtggtat teetgaceaa aagaggeaga cagatetgtg etaaceegtt 300
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                                                              307
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<211> 502
<212> DNA
<213> Mus musculus
<400> 193
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agagacagaa gcaattacaa cagagcagca atcactgtct actttaatca caccgtcgtt 180
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caagaacatt tettetggae agcaagcate acetgeecaa ateaeteetg aacaagcaac 300
accagetgtt tatgtetett caageecaet taettataac attaccagae aagcagaate 360
ageggteaac aacteettge etcaaacate accatetggg ttcactttga ecaateagee 420
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                                                              502
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<211> 427
<212> DNA
<213> Mus musculus
<400> 194
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aagatttgct agaaccaacc tgactaaagg agtcaccgtc ataccccct tgcacctgga 360
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<210> 195

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<211> 197
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (28)
<400> 195
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tottactgaa acaacggatt atgetggeet tattateeet eetgeteeta caaagecaga 180
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<210> 196
<211> 483
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (49)
<400> 196
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attggagaca aggctgccct caccatcaca ggggcacaga ctgaggatga ggcaatatat 360
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<212> DNA
<213> Mus musculus
<400> 197
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agaggagtgt getetgggee aggacetetg eaggactace gtgetteggg aatggeaaga 180
tgatagagag ctggaggtgg tgacaagagg ctgtgcccac agcgaaaaga ccaacaggac 240
catgagttac cgcatgggct ccatgatcat cagcctgaca gagaccgtgt gcgccacaaa 300
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cgag
                                                                   364
<210> 198
<211> 464
<212> DNA
<213> Mus musculus
<400> 198
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ggtgaaacag teacacteae ttgtegetea agtactgggg etgttacaac tagtaactat 180
gccaactggt ccaagaaaaa ccagaccact tattcactgg tctaataggt ggtaccaaca 240
accgagetee aggtgtteet gecagattet caggeteect gattggagae aaggetgeec 300
tcaccatcac aggggcacag actgaggatg aggcaatata tttctgtgct ctatggtaca 360
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gcaaccattg ggtgttcggt ggaggaacca aactgactgt cctaggccag cccaagtctt 420
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<210> 199
<211> 316
<212> DNA
<213> Mus musculus
<400> 199
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geaccecagt gtetetgaet etetteeatt tteeatcett tttgttteea tgettteaac 240
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<210> 200
<211> 367
<212> DNA
<213> Mus musculus
<400> 200
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tttgggtctc tcagttggtg tctgaagatg tgagaacaat tttagggtgc agagtttgga 180
ggaatttata agaaaacact gtetttgete tgettgteat tgtagteett eettgaette 240
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cctcgag
<210> 201
<211> 438
<212> DNA
<213> Mus musculus
<400> 201
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gegataaagt eetgtgtget gateettett gtgaceetae tgtgtgeaga aagageteag 180
ggactggagt gttaccagtg ctatggagte ccatttgaga cttcttgccc atcatttacc 240
tgcccctacc ctgatggatt ctgtgttgct caggaggaag aatttattgc aaactctcaa 300
agaaagaaag taaagagccg ttcttgccat cctttctgcc ctgatgaaat tgaaaagaag 360
tttatcctgg atcctaacac caagatgaat atttcctgtt gccaggaaga cctctqcaat 420
gcagcagtcc cactcgag
<210> 202
<211> 321
<212> DNA
<213> Mus musculus
<400> 202
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atgttggttt ttggaaccac agttttcgtt tctggttctg agaagcattt caagtacctt 180
gagaagatet atageetgga gatttttgge tgttttgete teaecgaaet gagteatggg 240
agtaatacca aggccatgcg aacgacagct cactatgatc ctgatactca qqaattcatc 300
ttacattccc cggatctcga g
<210> 203
<211> 307
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<213> Mus musculus
<400> 203
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accaattggt cgaaaggatg aageggacet tgcaaagteg tetttggetg tggccgacte 180
ggaccacctc acgatctaca atgcttatct agggtggaag aaagcccagc aagaaggagg 240
etteegetet gagateteat attgeeagag gaactteeta aacagaaegt eaetgttgae 300
actcgag
<210> 204
<211> 278
<212> DNA
<213> Homo sapiens
<400> 204
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ggagattatc ctggttcata ggaaatacaa agtttcaagg ggttgggact atcatatctg 180
caacttaatc ttgtgaaagg aaagtaagtc ttgggacccc aaaatcatta aactaaaggg 240
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                                                                  278
<210> 205
<211> 436
<212> DNA
<213> Homo sapiens
<400> 205
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ataacgtggc acctgatect tgacctaget tgctgacate ttttgaaagt gggtgagtte 180
tgcaaggtga agatcaagca ccagcagatt tggtgactat tgagggccta ttcctggttc 240
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gtctctttta taaagtctgg ccgggacctt caacaatatc agagtcaggc taagcaactc 360
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tttcactact ctcgag
<210> 206
<211> 467
<212> DNA
<213> Homo sapiens
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gccaaaaaa aaaaaaatta gttgggcatg gtgctgcaca cttacattcc cagctactca 180
ggaggetaag geaggagaat ceettgagee etggaatttg aggeageagt gagetatgat 240
tgcaacactg cactccagcc tgggcaacaa agcgagtccc tgtctcttaa aaaaataata 300
acagaagtcc tagaaaagtt tgtgtgttga tttactttta cattaaaagt atatggcatg 360
ttgagcagcg taaatataga aaagtgtagg gaagactgag caggaagtac tcctttggga 420
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<210> 207
<211> 260
<212> DNA
<213> Homo sapiens
<400> 207
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```

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atatttettt gtatttett tetattttgg gggaeagtgt eteattetgt caeceagget 180
ggagtgcagt gacacgatca tggctcactg aaacctcaac ttccctggct ctagtaatcc 240
teccaceteg geetetegag
<210> 208
<211> 362
<212> DNA
<213> Homo sapiens
<400> 208
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atttetetee agetetagat ataggeetgt aggageetgg teattetgta ttteeettae 120
aaagaattet egtaggteee agaagtaeet ggatgettea tgaaatttta attggacatt 180
tottaaaata toaattoatt aaatogtgtg tgottattta catggtggat agttotacaa 240
tatggtcccc ttttctgccc ttgaaaacca tctttgtggc cgggcacggt ggctcatgcc 300
tgtaatccca acactttggg aggctgaggt gggtggatca cctggggtta ggagttctcg 360
                                                                  362
ag
<210> 209
<211> 328
<212> DNA
<213> Homo sapiens
<400> 209
qqaqctqcqc atggatttta tattggaaga catggatctt gctgccaacg agatcagcat 60
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gtcagagaag gcaattgaaa aatttatcag acagctgctg gaaaagaatg aacctcagag 180
accececcy cagtatecte teettatagt tgtgtataag gttetegeaa cettgggatt 240
aatottgete aetgeetaet ttgtgattea acettteage ceattageae etgageeagt 300
gctttctgga gctcacacgg cactcgag
<210> 210
<211> 487
<212> DNA
<213> Homo sapiens
<400> 210
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catttctaaa ggatgaaagc tcttgtatgg catagatatg aattccttcc tctggtaata 180
attaggttat teccagaage acagtgteat tetttaaata aaagetttee tgtttaaage 240
ttttcaaagg agcagaccac cttgaagatt ccccctaggg ttgatatgtg tctaattcat 300
tttataaaaa ttattettgt etteatttta aagetttgge tatatagtea gaaatgteet 360
aaataacaaa ctattttgta tttaatttag ggaagactaa agggaagaaa aatgaaaact 420
cagtetttat gtaageteea aggatattag ggettaaagg gettttetag ttttatgaga 480
                                                                   487
tctcgag
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<211> 390
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (108)
<220>
<221> unsure
<222> (121)
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<220>
<221> unsure
<222> (137)
<220>
<221> unsure
<222> (357)
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ntggccaaaa caattingag aaagaacaat aattiggagt actcctatta totaatgita 180
agaatgacta taaagctaca gtaattagtg ctatattgac aaaaggctag ccacaaacct 240
atgaaacaga aacaagteea gagatacaee cataaaaata tggtaaaetg ataettgaca 300
tgtccaaaaa caatgaatgc aaaaaggata atcttttcaa caaatgggat tggaacnatt 360
ggacattcac atactetece eccettegag
<210> 212
<211> 322
<212> DNA
<213> Homo sapiens
<400> 212
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tacttgggag gctgaggtgg gaggatggcc tgggcccagg aggtggaggt tgcagtgagc 120
cttgatagca ccactgcact ccagcctggg tgacggagcg agaccctgtc tcaaaacaga 180
caaacaagca aaaaataggt taaagtctgg atttcactga ttttcttgct taataagttt 240
tttaaaacca cgatgctgca atttttccc tctcaagctt cttgaaaatg tgtgatttac 300
ccttttttat ctattactcg ag
<210> 213
<211> 290
<212> DNA
<213> Homo sapiens
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teccagttag ttgttggetg aatgateagt etatttattt tatatate taggeateta 180
catatocatt catotactto totttotato cacotactta tgtatocatc catocatoca 240
tocatocate catteateca tteaceattg aattetagae cageetegag
<210> 214
<211> 216
<212> DNA
<213> Homo sapiens
<400> 214
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cacgtggagg ttgctagacc tgggatccag cccttctggt gtcacctccc agggtgactc 120
aactccagag ctcccagctc ctccagcagc cgacaggagg cccgtcaaga tgcaggcagg 180
tattgccacc ccagggatga agacagcacg ctcgag
<210> 215
<211> 442
 <212> DNA
 <213> Homo sapiens
<400> 215
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gggtgcagec ettetttgce tgtetcatag gagateetca cetcaetttg tgaaaaceca 180
tgctgtctgt aatgatccca aaagctgctg caaaatacct caatacaaaa gacatgttaa 240
cctggacgtg gtggctcacg cctgtaatcc cagcactttg agaggccgtg gggggtggat 300
cacttetttg gteacetgaa gteeaggaet teaagaecag eetgggeaac aeggeaaaac 360
cccatctcta ccaaaaaata caaaaattat tcaggcatgg tggtatatgc atatagtccc 420
agctactagg acgaggctcg ag
<210> 216
<211> 313
<212> DNA
<213> Homo sapiens
<400> 216
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tgcagtgagc cgagattgcg cgactgtact ctagcctggg tgacagagcg tgactccatc 120
tcaaaaaaa aaaataaaat aaaaaactaa atgttaaaag gagatttctt ttaatagaga 180
aagtagtegt etttttttgt tattetttt ttettaatat getttaagtt agteeataga 240
atggactttg ttcttttggg ggttaatagc taaaatattt aaagcaatga aactgaaagg 300
gtcagtactc gag
                                                                   313
<210> 217
<211> 284
<212> DNA
<213> Homo sapiens
<400> 217
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aaagtaggaa attgtcctag cttaccctaa atttcaaatc tgagttgatt ttgtgatttt 180
attgcttata acagagaact catatttgac atattttttt cattgatgtg ttcctggtag 240
attttcacga atgagetgge aggtctaatc ggggaggect cgag
                                                                   284
<210> 218
<211> 326
<212> DNA
<213> Homo sapiens
<400> 218
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cteggtgcag ttecagaatt teteacecae tgtggtteac eegggagaee teeagaetea 120
getggetgtg cagaccaage gegtggegge geaggtggae ggeggegege aggtgcagea 180
ggtgctcaat ategagtgce tgegggactt ectgaegeec eegetgetgt eegtgegett 240
ceggtacggt ggegeeecc aggeeeteae eetgaagete ceagtgacea teaacaagtt 300
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<210> 219
<211> 530
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (26)
<220>
<221> unsure
<222> (379)
<220>
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<221> unsure
<222> (414)
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<221> unsure
<222> (429)
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<222> (437)
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ggtctagtac agtcagagat cagttccttc tgtataattt acagagaatt tttaaacttg 180
cggggaaaga tgtacgacct agattgtata gggagaaggg agcgtcttag ctgcatagtt 240
ctaatttgta taagcaccat gccatgtttt tcattgtttg ccctttatat atgaaaatac 300
ttacacttaa aagcattgtt gtttagtttc aaaatctcaa cttaatacca ttcacaaatt 360
taataaggge gttgtcatna cataaaacta attgggaaat aatcccatct atcnggacag 420
ttetetggna tagtaanaca tgegttetet aagettetae ettttaaaca getttgttet 480
aattactccc tttgtacctt tccatttctc agtaaaatta catactcgag
<210> 220
<211> 507
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (360)
<400> 220
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tggctctacc agctcagccg ccaggtggat gagctggaac actggatagc cgagaaggag 180
gtggtagetg geteeceaga getgggeeag gaettegaae aegtgteggt getaeaggag 240
aaatteteag agtttgecag tgagacagga accgcaggge gggagegget ggeggeggte 300
aaccagatgg tggacgagct gattgagtgt ggtcacacag cagcggccac catggctgan 360
tggaaggacg ggctgaacga ggcctgggct gagctgctgg aactcatggg cacccgggcc 420
cagctgctcg ctgcctctcg ggagctgcat aagttcttca gcgatgcccg ggagcttcaa 480
gggcagattg aggagaggcg actcgag
<210> 221
<211> 382
<212> DNA
<213> Mus musculus
<400> 221
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gtaggggcag ctcagggggc tctgggcccg accaggaaag gagccgtgga ggctgacgtg 180
ctegetacte teccaaceca agateegagg eggegteagg cetegtgeag eegggtggte 240
teagetgtge aggteceaea gacetgttea teetecaeae eegetgeaee aggetggegt 300
ttaaggggag aaggtccaga gagggtgagt gtgtggagag gatgcccaaa ctgcagggtt 360
ttgagttttg gggccgctcg ag
<210> 222
<211> 194
<212> DNA
<213> Mus musculus
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ggtaaccttg gctgtcctga aactcactct gtagaccagg ctggctttga actcacagat 180
cccactgtct cgag
<210> 223
<211> 477
<212> DNA
<213> Mus musculus
<400> 223
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ggaggaaaga tggctgctgg catcagtgta gaactttaca aggctgttca gcaagggacc 180
attaagtgca actiticing ggttgctitg ggtgactect ggateteece egtggattea 240
gigetgieet ggggaeetta eeigtatagi algietetee tigataatea aggetiggee 300
gaggtgteeg acattgeaga geaagteete gatgetgtaa acaagggett etacaaggag 360
gecaeteage tgtgggggaa ageagaaatg ateattgaaa agaacaeega eggggtaaae 420
ttctataaca tcttaactaa aagcagcccg gagaaagcta tggaatcgag cctcqag
<210> 224
<211> 389
<212> DNA
<213> Mus musculus
<400> 224
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teetggeact gaageaagag etgegegggg ceatgaggea geteecetae tteateegge 180
cagccgtccc caagagagat gtggaacgtt actcagacaa gtatcagatg tctgggccta 240
ttgacaacgc categattgg aaccetgatt ggeggegaet ceeeagtgag etcaagatte 300
gagtgeggaa agtacagaag gageggaeea eeattateet teecaagagg eeecetaaga 360
gcacagacga taaggaggag taactcgag
                                                                389
<210> 225
<211> 423
<212> DNA
<213> Mus musculus
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aatggagatg ggaataatac agtggagatc gtgaatacat ggactcagag ctgtgttgat 180
gggagateta ataattggaa ttetgaaatg tgtggteaet ttteetteet getettgggg 240
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tggaactcaa aacatttata ttttaatttt catagtgccc tgtatttgtg ggtctctctc 360
ttcaagccat ctgctgcctc tgaaggcatt tccacccagg cttcttgtcc ccaccaactc 420
gag
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<210> 226
<211> 379
<212> DNA
<213> Mus musculus
<400> 226
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agccaggete tgcaactgga ggccccagag ctacctgtgc aagtgaaccc gtccaaaccg 180
cggaggggca gcttcgaggt gacgctgctg cgctcggaca acagccgtgt tgaactctgg 240
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actggtatta agaagggeec tecacgaaag etcaaattte etgageetea agaggtggtt 300
gaagaattga agaagtacct ttcataaaga ggttgggaaa gagtcctcat gttgagcttt 360
cagtccctgg aggctcgag
<210> 227
<211> 113
<212> DNA
<213> Mus musculus
<400> 227
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aaacttegga gggaaccate tactagatgg tteeeteeca agttteeete gag
<210> 228
<211> 379
<212> DNA
<213> Mus musculus
<400> 228
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taagetttta attatttaat gaagattaat ttetggtatt agtttgatte ttetteeaaa 240
tttattatta aagecagtta ggaaggttta gggattacta ttattgaate teatactgtt 300
atattacaac atgitagcag accigititi aaattitigti tgittititig cittigtagg 360
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<210> 229
<211> 410
<212> DNA
<213> Mus musculus
<400> 229
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cccaggtcta cacagaagtg cattcagtga actaggaaga caggagcggc agacaggagt 180
cccgaagcca gtttggtgaa gctaggaagg actgaggagc cagcagcagc agtgcatggt 240
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gatgtggtgg tgaagetggg aaagggttee aggatggtgg agegagageg agttggtgat 360
gaagetaget ggeggettgg ettgteaact gegeggaaga ggtactegag
<210> 230
<211> 367
<212> DNA
<213> Mus musculus
<400> 230
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acaggetgtg gacateceea tetacagaaa gtecaetaca accaagagga caageteeet 240
cctgggcagg ctaaggaact gccagggctt caagggtgtc agtgtttcgt actctcagga 300
tectatetag tteagteeca geceteagtg ggetaggtea gtgtggetgg egeteagtgt 360
tctcgag
<210> 231
<211> 393
<212> DNA
<213> Mus musculus
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146 1445

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teegettetg egegegtggg tgaegteget gggggeggeg geegtgaetg geggaegetg 180
aacagagaaa cacgggttag actttccatt cacgcccaca gaaaaactta caacaaaatt 240
ataaattaaa ttaaattaag aattaaatta caaataagga caagaataat tagggcagaa 300
accatagetg eggetaaaag agaaaceetg tetecaaaat caaaaattaa aattaaaaaa 360
taaacccaaa tgaaaataag aataatactc gag
<210> 232
<211> 650
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (286)
<400> 232
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gcccgctgga tcagctagag aaaggagggg aaactgctca gtctgcagat ccccagtggg 180
agcagttaaa taacaaaaac ctgagcatge etetteteee tgeegaette cacaaggaaa 240
acacegteae caacgaetgg attecagagg gggggaggae gaegantate tggaeetgga 300
gaagatatte agtgaagacg acgactaaca tegacategt egacagtetg teagttteee 360
cgacagacte tgatgtgagt getgggaaca tectecaget ttttcatgge aagageegga 420
tocagegtet taacateete aaegeeaagt tegettteaa eetetaeega gtgetgaaag 480
accaggicaa cactiticgat aacatetica tagcaccegt tiggeatitici actigegatigg 540
gtatgattte ettaggtetg aagggagaga cecatgaaca agtgeacteg attttgeatt 600
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<210> 233
<211> 465
<212> DNA
<213> Mus musculus
<400> 233
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atgaaactaa ttaccateet ttteetetge teeaggetge tactaagttt aacceaggaa 180
tcacagtccg aggaaattga ctgcaatgac aaggatttat ttaaagctgt ggatgctgct 240
gaagecacta agaeggttgg etetgaeaeg ttttatteet teaagtaega aateaaggag 360
ggggattgtc ctgttcaaag tggcaaaacc tggcaggact gtgagtacaa ggatgctgca 420
aaagcagcca ctggagaatg cacggcaacc gtggggttac tcgag
<210> 234
<211> 304
<212> DNA
<213> Mus musculus
<400> 234
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agtetttgta gagaaaaace ettttgtaca geatatagta gaateteaat acatggaatt 180
aagagaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatecace aaacgaagaa aatteatata eagteageta eegacagaca eaccagaget 300
cgag
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<210> 235

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<211> 570
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (32)
<220>
<221> unsure
<222> (168)
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gattatgaaa agaataaagt ctgcaaggaa ttctcccatc tgggaaanga ggacttcaca 180
tctctgtcac tagtcctgta cagtagaaaa tttcccagtg gcacgtttga acaggtcagc 240
caacttgtga aggaagttgt ctccttgacc gaagcctgct gtgcggaagg ggctgaccct 300
gactgctatg acaccaggac ctcagcactg tctgccaagt cctgtgaaag taattctcca 360
ttccccgttc acccaggcac tgctgagtgc tgcaccaaag agggcctgga acgaaagctc 420
tgcatggctg ctctgaaaca ccagccacag gaattcccta cctacgtgga acccacaaat 480
gatgaaatet gtgaggegtt caggaaagat ecaaaggaat atgetaatea atttatgtgg 540
gaatattcca ctaattacgg acgactcgag
<210> 236
<211> 702
<212> DNA
<213> Mus musculus
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tggatctgct gacttcagaa gacattttgt caacctgagt cccttcacca ttactgtggt 180
cttacttctc agtgcctytt ttgtcaccag ttctcttgga ggaacagaca aggagctgag 240
gctagtggat ggtgaaaaca agtgtagcgg gagagtggaa gtgaaagtcc aggaggagtg 300
gggaacggtg tgtaataatg gctggagcat ggaagcggtc tctgtgattt gtaaccagct 360
gggatgtcca actgctatca aagcccctgg atgggctaat tccagtgcag gttctggacg 420
catttggatg gatcatgttt cttgtcgtgg gaatgagtca gctctttggg attgcaaaca 480
tgatggatgg ggaaagcata gtaactgtac tcaccaacaa gatgctggag tgacctgctc 540
agatggatcc aatttggaaa tgaggctgac gcgtggaggg aatatgtgtt ctggaagaat 600
agagarcaaa ttccaaggac ggtggggaca gtgtgtgatg ataacttcaa catagatcat 660
gcatctgtca tttgtagaca acttgaatgt ggacggctcg ag
<210> 237
<211> 317
<212> DNA
<213> Mus musculus
<400> 237
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aagattcaaa atgattttgt ggaaaattaa ttagcaaaga tggataagtg tagatttgaa 180
ttcttatgta tcagtaattt atgatcttat ttctctgtta ttgtgaatgt tggttttatt 240
aaagagttat tgaaactgtc ataaaccatt ttataggtct ttaataaaat taaagatgaa 300
atcagcaaag tctcgag
 <210> 238
 <211> 341
 <212> DNA
 <213> Mus musculus
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acactgtcat aaattgttga acggtggaac ttagtagtcc ctttgtgatg ttgtcattca 180
ttacatctgt ttcatgttta ggtgtagtgg gcgtggctgt tgaaggaagt ttgcagtctt 240
gcagctttta ttccctgtgc aacaaaagct tagaacctgt taaagggata ttaaaacaaa 300
gttgtagaat acaaacagta attggccatg cagatctcga g
<210> 239
<211> 409
<212> DNA
<213> Mus musculus
<400> 239
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ctgggtagct gagatcacag gcgcgcgcca ccacaccaag ctaatttttt gatcgtctgt 120
agagacgtgt teteacaata tggeecagge tggtgttgaa eteteggage tettagatgt 180
tgattcagac tccttcatag tataataggc ttaaaatgga aagactgtgc gtacaggaat 240
ttatcctaag gaagtaatgt gtcagatttg cgtatataaa tttaatatca gttattaaga 300
attttttta aaattaaata ttcaagtttt gggaatctgc taattctgtt gtgaaagtgg 360
aaatctatac agccacttaa aacagtatcg taggtgaaga gaactcgag
<210> 240
<211> 190
<212> DNA
<213> Mus musculus
<400> 240
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tgcccttgga atgtctaata gagacagcta tttttatgcc gcaattgttg ctgttgttgc 120
tgttcatgtg gttctggccc tgtttgtcta tgtggcctgg aatgaaggct cacgacagtg 180
                                                                   190
gcggctcgag
<210> 241
<211> 188
<212> DNA
<213> Mus musculus
<400> 241
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accgacaggt ggacagttca gcagagtcca aaggccacac tgggaaagaa atgaatttac 120
ttttagtgct tctttctctc ttcctcctg ccttccccag tgcaagagaa gacgacaggc 180
cactcgag
                                                                   188
<210> 242
<211> 110
<212> DNA
<213> Mus musculus
<400> 242
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tggctattgc agcagtaget ctgtatgtgt tacccaatat gcgactcgag
<210> 243
<211> 282
<212> DNA
<213> Mus musculus
<400> 243
gatettetae taetagtgag ettgatttta aaaettgttt gtgeagtatt gttetgatet 60
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ctccctgaaa atataataac ggagaaatac ctagctggag tcttctggaa ggggaatggc 120
tratgatety tygetattat gtacatygty tetttygety tygetetttt etectyggty 180
gctgtaaatc cttccagctc ggccaggagt ggcaaagctc tgagcaccga tgctgctgcc 240
tgtcagggca gacttccctg tcctcacccc ccacateteg ag
<210> 244
<211> 372
<212> DNA
<213> Mus musculus
<400> 244
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actgaattat aaggctatat tacaaactac catattggta aaacattcag caagactcct 120
tgttaataat aattatatcc agtttctaat tattatccaa attctaatta cccctaacgt 180
tgaaacataa aaggtaagca ctagtaaagt cctggctttc tcctttcagt tgtgatagcc 240
caatcetttg aggtaatagt aatggtttte aaatcaaata cageettget etgetgtgtt 300
tgctcagcat tatttccctc ccatactatc ttttccccac caggccttgg agaatcaatc 360
acacacctcg ag
<210> 245
<211> 367
<212> DNA
<213> Mus musculus
<400> 245
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ctgtgctaac tagctgactt acctgtgtca ctatgcacat gccatagtga catgtcatga 120
catgtcatgt tacacgcttc caaacatgtt gcccatggta aaaacacaca gcttatctgt 180
taattgaaaa gaggagttaa aaaccagcaa ccaattteet teettteate ttetetetee 240
tetecettte atttecette etttettt etttetgaet attttgatta tteettgaet 300
tttgtttcct acccattaaa tcgatctatt ttttcacaat cacagacaca cacagacaca 360
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tctcgag
<210> 246
<211> 362
<212> DNA
<213> Mus musculus
<400> 246
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tggctttcgt tggacttact tggaagggtc tcttgtttaa agtcattggt ttcttcagag 120
gacacagcat tetqtqqqqc taqqaqatte tqcttetqaq atqqqteagq gtttagecat 180
gtggccacag catctgggta tttgttgtaa agctgctttt cctcagaact tccagaatca 240
gcctgtttaa ctggtatggc acaggtgatg cctaggaggc aaaagcaaat cactgcaatt 300
ctcatggtag tgagttttcc ttggacggct cgaggcaggt ctaggcctct ttggccgaat 360
                                                                   362
<210> 247
<211> 486
 <212> DNA
 <213> Mus musculus
 <400> 247
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 ccgcgcgcct acgtgctgtg gacttcgcgg agcgacacgg ctacattaaa ggcatcgtaa 180
aggacateat teatgaceet ggeegeggeg eteceetege caaagtegte tttegggate 240
 cctaccgatt caagaagcgg acagagctgt tcatcgcagc ggaggggatc cacactggac 300
 agttcqtqta ctqcqqcaag aaggcccagc tgaatatcgg caatgttttg cccgtgggca 360
 ccatgcctga gggtacgatc gtgtgttgtc tggaggagaa acctgggggac aggggcaagc 420
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tggcccgagc ctccgggaac tacgccacag tcatctccca caacccagag accaagaaga 480
ctcgag
<210> 248
<211> 182
<212> DNA
<213> Mus musculus
<400> 248
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aagggtccaa aaccagtgct gtggtccctt tgttgcctgg gggaggccag gttctctaac 120
tctcgaggca ggtctagaat tcaatcggcc aaagaggcct ataggcctct ttggccgaat 180
<210> 249
<211> 101
<212> DNA
<213> Homo sapiens
<400> 249
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tactcctaga gtggtgcctg gcaagtagta gcaggctcga g
<210> 250
<211> 374
<212> DNA
<213> Homo sapiens
<400> 250
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tgatcatage teactgeage etcaagtgat agetegtage teactgggte aagtgateet 120
cctacctcat cgtgagtagc tgggactaca ggtgcccctc caccatactc acctaatgtt 180
ttgaatattt tgtagagatg aggtettget atgttgeeca ggetggtete aaacteetgg 240
geteaagtga tteteeegee ttggetteee aaattgetgg gattataggt atgageeace 300
aagcccagcc ctgacctgat taataacacc caagacacac agaggtggga ccgtaacacg 360
gggagctact cgag
<210> 251
<211> 268
<212> DNA
<213> Homo sapiens
gcggccaaag aggcctacga gattctgtct ccaaaaaaaa aaagcataag gaaaaggaac 60
aattttagtt ceteataace aatttteata tgetatattg aatettteea aataaatgat 120
atttaatact aatgttttct gettatttcc catgattett ttggtgtett acaettttaa 180
taataataaa atatteegge eaggegtggt ggeteaegee tgtaateeca acaatttggg 240
aggccgagat gaacggatcc atctcgag
                                                                   268
<210> 252
<211> 373
<212> DNA
<213> Homo sapiens
gaattcggcc aaagaggcct acttetttgt aatactcaga gacaatctca gtggcccctc 60
cagctgcatg gctttaaatg ccactgacat gctgatggtt cagtaggggg gcgctgtggt 120
gccctgccag atcccttcac acagccagtg cccaggaccc ccacccccaa cacactacca 180
cgcatggtag ctgccagatg cctacagcct cttttccaga gacttgccct caactgaagt 240
 cacttgcctt caaatgtacc cacactccca gagaacttct cacagccaat aaatgactga 300
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tccctgtctc gag
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<211> 553
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (48)
<220>
<221> unsure
<222> (86)
<220>
<221> unsure
<222> (461)
<400> 253
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actaccaaac etgcattaaa aattteggtt ggggcgacet eggagcagaa eccaacetee 180
gagcagtaca tgctaagact tcaccagtca aagcgaacta ctatactcaa ttgatccaat 240
aacttqacca acqqaacaaq ttaccctagg gataacagcg caatcctatt ctagagtcca 300
tatcaacaat agggtttacg acctcgatgt tggatcagga catcccgatg gtgcagccgc 360
tattaaaggt togtttgttc aacgattaaa gtoctacgtg atotgagttc agaccggagt. 420 -
aatccaggtc ggtttctatc tacttcaaat tcctccctgt ncgaaaggac aagagaaata 480
aggestactt casaaagege etteeceegt aaatgatate atstsaactt agtattatas 540
ecagcacete gag
<210> 254
<211> 398
<212> DNA
<213> Home sagiens
<400> 254
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tacaaataag cccaaaagtg taatgtatca gagtcaatgt ggataaaatt cacctattaa 120
aaggcagaga tgggataata ataacataaa tcctgctgta tcctggttaa taaaaggcac 180
acctaacacc aaaccaaaag aaaattttga acataaagtt ttgaaaaact aagaggtttt 240
ttctcatgct actaataaag acatacccaa gattgggtaa tttataaaga aaagaagttt 360
aattgactca tagttttgca tagccgggaa agctcgag
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<210> 255
<211> 492
<212> DNA
<213> Homo sapiens
<400> 255
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ccacaaatgt ggaagaaagg aaaatccaaa cctcctaggg cccagcaacc caaacaaaac 120
ctctatttac atttcataaa tttgccttca atcaactttt atgcaaatat tttttcacat 180
aattgtattc atatttaaac aaaatttttt tttttttta gtagtgacag gggcttgcta 240
tgttgcccat gctggtctcg aacccctagc ctcaaacaat cttctcactt cagcatccca 300
aaatgttggg attacagaca tgagccactg cacctagcct aaacagagta ttttttatta 360
cacacctttt atgtgtccat gattacagta ggagttgtag gggatataaa ggcctatgcc 420
actgaagtcc aaagaagaag gaggtcaaga aagagttttt gaagtagcat ttaagatgga 480
```

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492
taaaccctcg ag
<210> 256
<211> 408
<212> DNA
<213> Homo sapiens
<400> 256
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teretgrete tracteaart treetertt reaattrete treetere treetere 120
tetetetet acacacaca acacectaca cacatgggca cacacacaca gttteccagg 180
tttccctccc aaatccaaqa aqaaattgtt ccctcttctg tatctccagt ctgttccgaa 240
atcatggett cacteteagg gatgataage cetteteetg ettetettt ceeagaceec 300
aaagtettee etcageetge tetggegtee eecaceecaa gtteeetget caaacteete 360
actaccagcc tttatcccct gaagtttgaa aatcccctgg acctcgag
<210> 257
<211> 493
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (71)
<400> 257
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aagtgattet eetgeeteag eeteeegagt agetgggatt acaggeacat gecaetgege 180
caagctaatt tttgtatttt tagtagaaac ggggtttcac catgttgeet gggctggtet 240
tgaattcctg acctcaggtg atacttgcct cgccctccca aagtgcttgg gttacaggcg 300
tgagccagtg cgcccagccg cctctgtgat tttttaaatt gtgtcactca cactaaattt 360
aacagcaatt tttttgataa ctcattttt ttgtagtctt tccagaacat taaacttagt 420
tttcatagaa attgcaattc tctttgtatt taattaactt acataattaa aataacaact 480
ggctacactc gag
<210> 258
<211> 525
<212> DNA
<213> Homo sapiens
<400> 258
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gcctgaaaga attgtgataa aggggaaact gagtactggg aacaaaagag aacaagtagg 180
taacgaagtg gtggccaggt gcagtggctc aggcctgtca tcccagcact gtgggagacc 240
gaggegggeg gateacttga ggteaggagt cagaceagte tggceaacat agtgaaacce 300
cgtctctact aaaaatacaa agttagccag gggtgatggt gggagcctat aattcgagct 360
acgtgggagg ctgaggtagg agaatcactt gaaccgggac ggtgctgcca cccgaggaag 420
tgacagetga actgagatet gactgaaggg etgaagtetg gtggatgaag atgecagagg 480
agactgttct taggcagagg gagcagtgat acgaaggacc tcgag
<210> 259
<211> 344
<212> DNA
<213> Homo sapiens
<400> 259
qaattcqqcc aaaqaqqcct agagcttagg gagcatagga gtctcctgga gaattagaag 60
aaacagattt teetagetee ggeeceagae gttetgattt agtgtggtgt agaacteagg 120
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agttagtaat attaatggac agtcttgagt atttgctgat gcaactggtc tgaggaccat 180
actttggaag acctgettta gatagtagac aggacagtaa tttaaaatag geaaatatgg 240
tttattttta aaatggtaaa actagaaaga tactgatttt atgtgtttaa aaaaaaaagt 300
ctgcatctga ctgctatggt tatccaagaa ggcacccgct cgag
<210> 260
<211> 262
<212> DNA
<213> Homo sapiens
<400> 260
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gtgtgtgttt attgagaggg tggggggga tcactcaaca ttcagcctgt acatactcaa 120
aggtgtagaa gtgacaaaga tgactcaacc aacaggactt cccatgactg gccagccaga 180
ggaagaggge atgaggacac agccagcagc gttactgggt cgtgatgacg cagacctgcc 240
gggacacccc caaattctcg ag
<210> 261
<211> 421
<212> DNA
<213> Homo sapiens
<400> 261
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ccgctttaaa aaaggcaaaa ttgtcctcct cttttctctt ttgtgttggg ttttattcaa 180
cctgggcatt ggatttgtca aacctgctac cttgagatgt gtaccaaaga ttcgcccaac 240
aactcacccc accaatgcaa gtcaccagtt aactateetg ccaacaaatt etteetttac 300
ctettteete accatateae caaaaatgeg tgagaaaaga aacettttgg aaacaggget 360
caatgtctca gacaccgtta ctttgccaac agctccaaac atgaacagtg aaacactcga 420
<210> 262
<211> 329
<212> DNA
<213> Homo sapiens
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aagttgttac caatggtgaa actacatgtt cagaaagtgc ttctcagaat gatgatggct 180
ccagatccaa ggatgaaaca agagtgagca caaatggatc agatgaccct gaagatgcag 240
gagetggtga aaataggaga gteagtggga ataattetee ateaetetea aatggtggtt 300
ttaaaccttc tagaccccca aaactcgag
<210> 263
<211> 499
<212> DNA
<213> Homo sapiens
<400> 263
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gaaataactg tggaatttat aattccaacc aaatgaaatc cagcaccttg ataatcatga 120
tctgactaca atattattaa acaaagctcg aagaggaaaa taggaatact aaaaatatca 180
cattaagacc aagatgagtc cattatcacc aatgctctac agttccattc ttcaggattt 240
ccactccatt ttaaatgcta gggtcgattt tcttcatctt aaccatgaat gcttatgata 300
acaccaaata cttgatttac cttatatgaa gatggcggct ctgctctgag aggagtttca 360
ggtaacttgc caggtaaaac atcttcatct acagtggttt ccacattcct gataagatac 420
tggctagtgg tttgcagtga actaacactt tcttttttgg agaggttagg aagggtaaat 480
aaaatgtcac tgtctcgag
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<210> 264
<211> 317
<212> DNA
<213> Homo sapiens
<400> 264
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gagaatatga gatgtaagat atgtatacca gaagaattgg ggttatatat ttgtgatttg 120
ggttgtgaag atgtattttc catgtgtttt ctcagatgaa tgttggcgat ttgtatttgt 180
ctaatgtttg gcagatttgg aagaattatc ttgtgcacat gggcaataac agagaaagtg 240
cttqtqtcta ttttgtggat gtacgctctg tttggtttac gtatttggga aatgtaggaa 300
gaccatgcgt actcgag
<210> 265
<211> 301
<212> DNA
<213> Homo sapiens
<400> 265
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cattgaaaat ataattcggt gtttaaaata aattcatacc cgttttgtgt gctgtgcata 120
aatagcaagt atatgtgtac cttaccaaac ttatggtccc cagtccccaa attccaaaat 180
tatgcaggag ggaaggttag ccattgcagt aaacaatttc tccctattga cccatgctct 240
ccagetgatt atgatgtggg cagtactcat ccaaggetat acagaccage egggtetega 300
<210> 266
<211> 517
<212> DNA
<213> Homo sapiens
<400> 266
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actagegate agetgacatt cetaactgaa ggetgeaatg tgttgettat teattttgta 120
ccgtgggagc tgcggggact agcagagagc taaactatgc atttcaaaca gcagtgcttg 180
tgcagaaaga ggggtgagag agaggcagcc ggcgaggaaa gagcacagct ggactttctc 240
cttgttttta tccatttctg caggatcatg tattcataag ggatgaggcg ggccacggcg 300
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acagagageg etttgccaeg atcaaatcag catetttggt tacaegacag atceatgage 420
atqaqcaqqa qaacqaqttq cqqqaacaga tgtcaggtta taagtqgatg cgacaatgga 480
ttttacataa tggattgaat tctagacctg cctcgag
<210> 267
<211> 491
<212> DNA
<213> Homo sapiens
<400> 267
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aacagagcga gactccatct caaaaatata tatatatatt cagcacccac cacttctccc 180
catchecact geotgeacea geoceaggee tgteecteac ttgggtgetg tegtagetee 240
tgtctgggct gcttgcattc acctttgcca ccacagtctt ttctctccat agcagccggt 300
etgattette teaaacetaa gtegeateaa gteaeteage tgetetteag eetgeagtgt 360
ctcctgaact caccctggcc ctcaaggcca acccatcttc ctcgccagcc tcgcctcttg 420
gtgtctccct cacttgctcg gctcctatcg tgcgggcctc catgccgctc ctgaacacac 480
acagtetega g
<210> 268
<211> 528
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<212> DNA
<213> Homo sapiens
<400> 268
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aatgaagcta gettteatgg acaagagaga accaaaactg gtatttetga agaagcagea 120
ataqaaqaaa ataaaaqaaa tqatgactct gaagcagaca cagctaaact gaatgccaaa 180
gaagtagcaa etgaggaatt taatteagat attagtettt etgataatae taeaeetgta 240
aaattgaatg ctcaaactga gatttctgaa caaacagcag ctggggaact agatggagga 300
aatgatgtat ctgatctaca ctcatctgaa gaaacgaata ccaaaatgaa aaattatgaa 360
gaaatgatga teggegagge aatggetgaa actggeeatg atggtgaaac agagaatgag 420
qqcataacta ccaaaacctc aaagcctgat gaagctgaaa caaacatgtt gactgcagaa 480
atggacaact ttgtttgtga cacagttgaa atgagcacaa gactcgag
<210> 269
<211> 454
<212> DNA
<213> Homo sapiens
<400> 269
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gagggcagga gtagatggac aagaccatac caaggtcagc tgttcccctc gccgagaagg 180
cagcagetga actitecget tacgetgeec agagetgeea ggtgtagaet gagaattega 240-
gttttgtttc ttccttgggg ttgtatctgc agecttttct ccctgggact cctgtctgct 300
gccaatggag ttgaagaact ggaatgatga cacagctett ettetettat tttetttget 360
ggcctctccg gtgtctggga gcgggatgag gctgggctag agaagggtga tgaactgggg 420
ccatttetet tecacagetg tgagatgeet egag
                                                                   454
<210> 270
<211> 340
<212> DNA
<213> Homo sapiens
<400> 270
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ttccaagcca cttgggtcag aggatataga taatcaaggg ctaatgatgc caaaggagga 240
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<210> 271
<211> 496
<212> DNA
<213> Homo sapiens
<400> 271
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gtattqtctq gaaqaatgaa teccatteet cetecatett etttggetet ggtgtggget 180
tatgtaatct ggatacaatc ccataaagtt gctgtgttta gtaatgtcat ttctccgtgt 240
ctgttgggga ctggtttcac gatcccctaa ggatagcaaa atctctggat gctcatggcc 300
tttatataaa agggcacgat atttgcatac aatctacaca tccccccaca tactttcaat 360
catctctact cataatactg aatacaatgt aaatcctatg taaatcgtta ttatgctgta 420
ttggtttttt cgtctgtgat attttcagta ttgcattgtt ttgttgtgaa aacagggtct 480
tgctcagtca ctcgag
<210> 272
<211> 403
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70

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<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (25)
<220>
<221> unsure
<222> (29)
<220>
<221> unsure
<222> (43)
<400> 272
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ctttttaggg aagcaaaggc gaatgctcct tgtgttatat ttattgatga attagattct 120
gttggtggga agagaattga atctccaatg catccatatt caaggcagac cataaatcaa 180
cttcttgctg aaatggatgg ttttaaaccc aatgaaggag ttatcataat aggagccaca 240
aacttcccag aggcattaga taatgcctta atacgtcctg gtcgttttga catgcaagtt 300
acagttccaa ggccagatgt aaaaggtcga acagaaattt tgaaatggta tctcaataaa 360
ataaagtttg atcaatccgt tgatccagaa attatagctc gag
<210> 273
<211> 455
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (133)
<400> 273
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ttctttaaat gtnccacaga gccacaaagt ttgcaaccgc caccatcagc atagagtcct 180
ttgggattat caggacaaga tctagacagg tgccccattt ctccacaaac aaaacatttt 240
gcaaaaggaa attcgccaag agccgggtct actttagcct tacacttggt tatttcgtgc 300
tetgtggace cacacetgta acatatecea gtgcccatgt ettgatttte aagggcageg 360
gggcaatctg caattccatg accaggtttt ctacaatgga aacacaccgc gcacgaatcc 420
cccaggcact cgaggcaggt ctagaattca atcgg
<210> 274
<211> 383
<212> DNA
<213> Homo sapiens
<400> 274
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taaaaaattt tttttgtttg tttttttta aagacagggt ctcaccctct cccccagtcg 120
ggagtgcagt ggcacaatca cggctcactg cacccccgaa ctcctgggct caagcaatac 180
tectgeetea eceteeggag tagetggaac tacagatgtg caccaccata aaaaacatat 240
ttaaaaattc tgaaatattt gtagtgctaa cgcttttttt atccactgag tatagaatca 300
cagcataatc ttcatatact tttaccttca caagttcttt aaatacagca tgctgaatca 360
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ttttttcttt gacctgcctc gag
 <210> 275
<211> 302
 <212> DNA
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<213> Homo sapiens
<400> 275
gggaagatet aaagaeeeag gaaggtetet gggataaage caagatgaaa eteeeettae 60
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ttgagacece tttgggtget aagacgetge etgaggatga ggagacacea gageaggaga 180
tggaggagac cccttgcagg gagctggagg aagaggagga gtggggctct ggaagtgaag 240
atgectecaa gaaagatggg getgttgagt etateteagt gecagatatg gtgataeteg 300
<210> 276
<211> 468
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (319)
<400> 276
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ttatgtcact catctcttaa aactgtagat cacttttgtc ttgctaggta caatgttggt 180
gtcacacagt cttcattaca tgcatgtggg tggcacattt ctgatgtcag gctagcttcc 240
ttcctaacac ttccttgcac cattctagca gcatgatctt agggcatgta agcccatttt 300
aatgttagtc ttaaacatnt gacacacaca cacacacaca cacacacaca cacacacaca 360
cacatacacg gacattttgg gattatagtg atattgttaa attgaatata taactggaat 420
                                                                   468
caagtgacat ttgaatgaga cagattcaca gaagtcatag agctcgag
<210> 277
<211> 443
<212> DNA
<213> Homo sapiens
<400> 277
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gacttataaa etgtgtttet etteeaette ttgetacatt taatetteta ggtgtteaga 180
tatetttgga gattatagge ageaataaag etaaggeage taacetttea acattettgt 240
greaggetaa tattttggtg aaaggaatte ttgtgtttet caaagaacta gagetgaage 300
agaaataagt tecaatgage aagtgteeaa ttggaceatt gaatgaaate tagtgtttta 360
aacaattetg atgitteaat gittigitet gittiettit gaietigiga geagtaagae 420
                                                                   443
atattttatg tgggtggctc gag
<210> 278
<211> 354
<212> DNA
<213> Homo sapiens
<400> 278
gaattcggcc ttcatggcct aggtggagtc cgtcatgccg gtggtggtgt gcacattgag 60
ccccggtata gacagttccc ccagctgacc agatcccagg tgttccagag cgagttcttc 120
ageggactea tgtggttetg gattetetgg egettttgge atgacteaga agaggtgetg 180
ggtcactttc cgtatcctga tccttcccag tggacagatg aagaattagg tatccctcct 240
gatgatgaag actgaaggtg tagactcagc ctcactctgt acaagagcca ggtgagaatt 300
tcaaggatta tcgacttcat attgcacatt aaagttacaa attaaagact cgag
<210> 279
 <211> 414
 <212> DNA
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<213> Homo sapiens
<400> 279
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taagtettea gageetaetg aggatgtgga geecaaagag getgaagatg atgatacagg 180
acccgaggag geteacegee caaagaagag aaagaaaaga tgteeggtte tgeeteeagt 240
gagaaccgtg aaggaacact ttcggattcc acgggtagcg agaaggatga cctttatccg 300
aacggttctg gaaatggcag cgcggagagc agccacttct ttgcatatct ggtgactgca 360
gccattcttg tggctgtcct ctatatcgct catcacaaca agcggacact cgag
<210> 280
<211> 352
<212> DNA
<213> Homo sapiens
<400> 280
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cgctgcagga cgtggaagac gaaaatcagt gagacataag ccaacaagag aaaccatctc 120
tgaccaccc ctcctccca tcccacctt tggaaactcc ccattgtcac tgagaaccac 180
caaatctgac ttttacattt ggtctcagaa tttaggttcc tgccctgttg gtttttttt 240
ttttttttt aaacagtttt caaaagttct taaaggcaag agtgaatttc tgtggatttt 300.
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<210> 281
<211> 350
<212> DNA
<213> Homo sapiens
<400> 281
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cagtggcagt ggacattcag catttgagec cetggtggee agtggagtee eegettettt 180
tgtgcctaag cctgggtctc tgaagagagg cctcaattct cagagctcag atgaccactt 240
gaataagaga teeegaaget etteeatgag eteettgaca ggegettaca caagtggcat 300
ccctagetcc ageegeaatg ccattaceag ttectacage tecactegag
<210> 282
<211> 285
<212> DNA
<213> Homo sapiens
<400> 282
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ctggcatccg aacaccgggt ggctggtgca gccgaggtct tcgggaattc cagcgagggt 120
cttattgaat tttctgtggg gaaatttaga tacttcgagc tcaataggcc ctttccagag 180
gaagctattt tgcatgatat ttcaagcaat gtgacttttc ttattttcca aatacactca 240
cagtateaga atacaactgt tteettttet eegacteece tegag
<210> 283
<211> 334
<212> DNA
<213> Homo sapiens
<400> 283
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tgacaaagaa agtaaggaga gcagtgttga gggggcagag aatcaaaggg gtcctttgga 120
aagcaaaggt cataaaaaat tactgcagtt acttacctgt tcttctgatg accggggtca 180
ttcctccttg accaactccc ccctagattc aagttgtaaa gaatcttctg ttagtgtcac 240
cageceetet ggagteteet cetetacate tggaggagta teetetacat ccaatatgea 300
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334
tgggtcactg ttacaagaga agcacggact cgag
<210> 284
<211> 445
<212> DNA
<213> Homo sapiens
<400> 284
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ggatgacgta gcccagtggc tcaagtgggc tgaaaatgag ttttctttaa ggccaattga 120
cagcaacacg tttgaaatga atggcaaagc tctcctgctg ctgaccaaag aggactttcg 180
ctategatet ceteatteag gtgatgtget etatgaacte etteageata ttetgaagea 240
gaggaaacct cggattettt ttteaccatt ettecaecet ggaaacteta tacacacaca 300
geeggaggte atactgeate agaaceatga agaagataae tgtgteeaga ggaeeeceag 360
gecateegtg gataatgtge accataacce teccaecatt gaactgttge accgetecag 420
gtcacctatc acgacaaatc tcgag
<210> 285
<211> 289
<212> DNA
<213> Homo sapiens
<400> 285
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aggicaaggic aatttatgac attgaacgtic cagatottat tacctatgag cottictaca 120
cttcgggcta tgatgacaaa caggagagac agagccttgg agagtctccg aggactttgt 180
ctcctactcc atcagcagaa gggtaccagg atgttcggga tcggatgatc catcggtcca 240
cgagecaggg etecateaac teecetgtgt acagecgeca caactegag
                                                                   289
<210> 286
<211> 422
<212> DNA
<213> Homo sapiens
<400> 286
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actocaagto ggagatgcag atocactoca agtoacaaca cgagaccaag coccacaagt 180
geocacattg etecaagace ttegecaaca getectaeet ggeocageae atecgtatae 240
actcaggggc taagccctac agttgtaact tctgtgagaa atccttccgc cagctctccc 300
accttcagca gcacacccga atccacactg gtgatagacc atacaaatgt gcacacccag 360
gctgtgagaa agccttcaca caactctcca atctgcaggt aaatgttcca cccacactcg 420
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<210> 287
<211> 400
<212> DNA
<213> Homo sapiens
<400> 287
gaatteggee aaagaggeet aggattetea eccaetgtge tteeageegg etcaeettga 60
attegteeat gattttgega atggetttge egegggeace aatgatgegg gegtgaacge 120
ggtggtccag cgggacgtcc tcagaaacca tctgctcaag ttcacccaca attctcagta 180
tagcatecet ggcagettet gtgttetttt egtaeeetgt gatggtaatt tggteetggg 240
gctaaaaaag gagaatgtag tcagaaaagg ggatgcctta ctgggattcc cgtcaggggc 300
aagagccggc ccccactgct gaggaaaaca gctcaggaga gaagatggaa agcaacgtca 360
cggctgattt aaaacaagag gttaacaacg tccactcgag
<210> 288
<211> 194
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74

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<212> DNA
<213> Homo sapiens
<400> 288
gaatteggee aaagaggeet ageetttatt tgaactaeta cattgetace agattacate 60
acttttcaga gttagagtaa cataatacct tggaaactat agccgaaaca gttcacatag 120
gaatgcactt teateceact titgcacttt teetitiggea eagtgaaget tateriacag 180
tcccatttct cgag
<210> 289
<211> 413
<212> DNA
<213> Homo sapiens
<400> 289
gaatteggee aaagaggeet agggggaegt gaggtaagaa ggtgeeeggg eeagggggea 60
ggagetetga tgtaggaeag eteageeeag teaaggggtg etatgaggae ageaggggee 120
tccgagtctg gggtggcctc acccccacaa gcagtcctgg ctactcagca gcactaccca 180
gaggggacgc ctgggcagtt tcttcaattc ggtggcacat caacatcgtt tgaaacttgt 240
tttttcttgt tttgttttct agaatttgat tcttccagaa tgaccttctt atttatgtaa 300
ctggctttca tttagattgt aagttatgga catgatttga gatgtagaag ccattttta 360
ttaaataaaa tgcttatttt aggctccgtc cccattgtgg ctctggtctc gag
<210> 290
<211> 213
<212> DNA
<213> Homo sapiens
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gatacetett tacggaetee acttatgaet ecetaaagee catgtegaag ececeatege 120
tgggtcaata gcacttgccg cagtactett aaactaggcg gctatggtat aatacgcctc 180
                                                                213
acactcattc tcaatcacct gagtccactc gag
<210> 291
<211> 136
<212> DNA
<213> Homo sapiens
gaatteggee tteatggeet acgeetaeae aatteteega teegteeeta acaaaetagg 60
aggegteett geectattae tatecateet catectagea ataateecea teeteeatat 120
                                                                136
atccaaacaa ctcgag
<210> 292
<211> 300
<212> DNA
<213> Homo sapiens
<400> 292
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ttactgtgcc cggaaaaccc ttccctcgcg gtgcagggta cacacagatt cattcctcac 120
tgtctctctc tctctctctc ttatctgcac gaagagctcc agatactcgt ctcctggaat 240
ggtggagatg aactaggcat ggaggtgcgt gaccaacctc agacggctcc cccactcgag 300
<210> 293
<211> 434
<212> DNA
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<213> Homo sapiens
<400> 293
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gagatgaagc tgttaacaaa ataagattag atacggagga acaactaaaa gaaaaatttc 240
cagaagccga tccatatgaa ataatagaat ccttcaatgt tgttgcaaag gaagttttta 300
gaagtattgt tttgaatgaa tacaaaaggt gcgatggtcg ggatttgact tcacttagga 360
atgtaagttg tgaggtagat atgtttaaaa cccttcatgg atcagcatta tttcaaagag 420
gacaaacgct cgag
<210> 294
<211> 386
<212> DNA
<213> Homo sapiens
<400> 294
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tttggctatt gttcaactgc tatgaacaat catgtacaga tttttgaagc tgaaaaagca 180
ttgaagatgc ttccaaagat aaatattact gataagtttt tctccccagt aataagcagc 240
tggattttaa atgttagtet aaagegtgag gtetaattgt geagatttet ttaetetett 300
aggtgttatg ceteaaacat aacteecata ttgggegtgg caateeagtt aatetggtgt 360
cagtagtgtt aaagaaccat ctcgag
<210> 295
<211> 433
<212> DNA
<213> Homo sapiens
<400> 295
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cttcttcaca gggcgtgtgg atttgtgtgt ggacgctggg tcatgctctc cagggtcacc 120
tgaactgggg gtgagctcct ggagccgccc gatgcactgc ttcagctcgt ttttgaggtc 180
tatggtgctc tggtggatgc cttttatcag cttgtggttc agttccacct cggggatgta 240
gactggettt gttgaaatte etegeagttt tgatgettte teeagaaaet egaacteate 300
cetettggte aggetetgtt caateteete ceteaaggte tggateteae tettettett 360
gaggagaatc tgataaatgg tgtcaaactt gctgttgacc ctcttcgtca cggcctcttt 420
ggccctcgag aca
<210> 296
<211> 363
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (197)
<220>
<221> unsure
<222> (343)..(344)
<400> 296
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ccccagcatc tgctacaaat cagggcacaa gaatgtgtct cacaggcttc ctcacccacc 120
ccgcccacg ggtatgctca ccagccggca ctgatgcatt cagaagagcat ggaggaggac 180
tgctcgtgtg agggggncaa ggatggcttc caagacagta agagttcaag tacattgacc 240
aaaqqttqcc atqacaqccc tctqctcttq agtaccggtq gacctgggga ccctgaatct 300
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ttgctaggaa ctgtgagtca tgccccaaga attgggtcaa cgnnctcttt ggccctcgag 360
aca
<210> 297
<211> 545
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (13)
<220>
<221> unsure
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<220>
<221> unsure
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 caaagagncc gnccacanac nccgacccaa ggaaaaactc cactaccatg agaattgcag 120
 tgatttgctt ttgcctccta ggcatcacct gtgccatacc agttaaacag gctgattctg 180
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gaagttetga ggaaaageag etttacaaca natacecaga tgetgtgnee acatggetaa 240
accetgacce atercagaag cagaatetee tagececaca gaatgetgtg teetetgaag 300
aaaccaatga etttaaacaa gagaceette caagtaagte canegaaage catgaccaca 360
tggatgatat ggatgatgaa gatgatgacg accatgtgga cagccaggac tccattgact 420
cgagcgactc tgatgatgta gatgacactg atgattetca ccagtetgat gagtetcacc 480
attctgatga atctgatgaa ctggtcactg attttccgtc gacggcctct ttggccctcg 540
agaca
<210> 298
<211> 419
<212> DNA
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<213> Homo sapiens
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agccagacac taaagatcac atagtatata aatccattta tatgaaatat ccagaatagg 180
taaatccata gcaacagaaa gcagattggt ggttgccagg ggctagttgg agggggaaat 240
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gaactagata aaggtgatga ttgtacacaa cactgaaatg ttcatttaaa aatgttaatt 360
ttggctgggc acggtggctc atgcctgtaa tcccagcact ttgggaggcc aaggggggca 420
aatcacaagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc catctctcta 480
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<212> DNA
<213> Homo sapiens
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tgttgttgtt ttaaaatatt atgatttggc tacagaccag gcagggaaag agacccggta 240
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<212> DNA
<213> Homo sapiens
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<222> (425)
<400> 328
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atggccagtg atgaggagac agaaaaagta gaaggaaaca cagttcatat agaagtaaaa 180
gaaaaccctg aagaggagga ggaggaggaa gaagaggtag aagaagatga agaaagtgaa 240
gnngaggtgg aagaggaggg agaaagtgaa ggcagtgaag gtgatgagga agatgaaaag 300
gtgtcagatg agaaggattc agggaagaca ttagataaaa agccaagtaa agaaatgagc 360
tcagattctg aatatgactc tgatgatgat cggactaaag aagaaagggc ttatgacaaa 420
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<212> DNA
<213> Homo sapiens
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ctggttctat gacatgaaga aagtttggga gggatatccc atacagagca ctatcccttc 180
coogtating tactacatga tigaactite citctacing technique teageatine 240
ctctgatgtc aagcgaaagg atttcaagga acagatcatc caccatgtgg ccaccatcat 300
totcatcago ttttcctggt ttgccaatta catccgagot gggactctaa tcatggctct 360
gcatgactct tccgattacc tgctggagtc agccaagatg tttaactacg cgggatggaa 420
gaacacctgc aacaacatct tcatcgtctt cgccattgtt t
<210> 330
<211> 390
<212> DNA
<213> Homo sapiens
<400> 330
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attgtgttca ttgcctcatc cctcgggcac atgctcctca cctgcattct ctggcggttg 180
accaagaage acacagateg caagteetae agetggaaac ageggetett cateateaac 240
tteateteet tettetegge getggetgte taetttegge acaacatgta ttgtgagget 300
ggagtgtaca ceatetttge catectggag tacactgttg tettaaccaa catggegtte 360
cacatgacgg cctctttggc cctcgagaca
<210> 331
<211> 452
<212> DNA
<213> Homo sapiens
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catttatgga ttgtctgtgg ctacttttgt gctacaaagg cagagccaca aaggccaaac 360
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tggaggaatg aaggaggtag gtgggactcg ag
<210> 332
<211> 535
<212> DNA
<213> Homo sapiens
<400> 332
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teccetggee tegggetegg egeagggtea gegeteetge aggeggeget tgeggtaegg 180
gctggcgaaa gtggagacgg acggcaggat ggattcactt ggcgacatgg cggggagctg 240
ggaagaegga caceggtgag tggetgeeeg ggagggetgg teggggegeg gacaggeggg 300
catggttctg ccaaggattt tgctttattt atcgcaagat gggggtattt cctccttcct 360
gcagtttata attgcatgaa ttagtgcagt gaattgagga tgcagtaaaa atatcttcaa 420
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<212> DNA
<213> Homo sapiens
<220>
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<222> (571)
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<221> unsure
<222> (594)
<400> 333
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ctccaagete ageetetegg attccceggg acceaegget tataatgege ttaaateeca 180
egectegece gagagacagn angteacegt cacegteace gectagegee ettgaceege 240
tcccactccg ctgcaqcgga gggtgtgtga gggagaggac gcagggaggg aaaagcgttg 300
ggagggcaaa catcttttca taagcttttc cccttctata tgccatctct gatgggagcc 360
tetntagate tttegteeat ttactaattg ggntgttega tttettattg ttgagttgta 420
agtggttttt aatggtetgg atgccagaca ggtgttttgc aaatattttc teegtetgtg 480
gettgtttct ccattetett attteettte ccagageaaa agtttttaat tgtaaegaet 540
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<213> Homo sapiens
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caactettga gaggetaaag aaactagage gtgateteag etttaaggag eaggagetta 180
aaqaacqaqa aaqacqttta aagatgtggg agcaaaagct gacagagcag tccaacaccc 240
cgcttctctt gcctcttgct gcaagaatgt ctgaggagtc ttactttgaa tctaaaacag 300
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<210> 335
<211> 556
 <212> DNA
<213> Homo sapiens
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 <221> unsure
 <222> (131)
 <400> 335
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tatagtccca gctactcagg aggctgaggc aggagaatag cttgaatccg ggagacggag 240
grtgcagtga gccgagatgg cgccactaca ctccagcctg gcaacagagc aagactctgt 300
ctcaatgaat aaataaataa ataatatagc cataaaatta tataattcca tgtttgtttt 360
tattagttta tttagaataa atatcttaaa ataagttttt atacaatctc attattttta 420
actcagaaaa taattcagat agaagttcgg atctccacga aataacattt aattggttca 480
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agccagtctc ctcgag
<210> 336
<211> 594
<212> DNA
<213> Homo sapiens
<220>
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<222> (311)
<220>
<221> unsure
<222> (339)
<220>
<221> unsure
<222> (547)
<400> 336
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agaaagaaga aaggagcctc agagacagag acctgtctcc ccagaggaga tggagacaga 180
gtggagcetg actgcctgga gtcgttctgc tgggagaaag cctggttgct gtggcacatg 240
cgtggcaggc tggaaatgat accetgtggg tatggtgctc tgttctgcat taattcaggc 300
tecaggetee ntacatetee tgtaaggace agggageang cagetgeagg agaaggggga 360
tgcggggggc catgggatta caaattetca cagcagccga gcccaggcag agaaaccete 420
cctgtgaagt gagttgaata gtgtccttcc cccatacccc ctaaaaactg acgtccactt 480
ggaacctcag aatgagaact tattgggaaa tagggatttt tgcagatgta atgatttgag 540
gatgtenggg ttaaaatgat cagactggtg tetttataag agtaaaaget cgag
<210> 337
<211> 331
<212> DNA
<213> Homo sapiens
<400> 337
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atacetgaca catatacett etgeteceta gateetttgg etagacteae tettttttga 120
gtctcccaaa ttaccattgt tcccggcctg gacttcaatc cagcctgtca cattattcct 180
gataccacae etgaccecca tgactgtate teteggatae acetggeatt egetecattt 240
ccccaaattt tettetttee tgtteeteac eetgateaca eetggtttag tgatggeagt 300
tccaccaggc ctaatcaaca cacacctcga g
<210> 338
<211> 522
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (31)
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PCT/US99/24206

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ccgtatcacc gcctgtcatt cacacatgca gggagggcac cgggagaaaa tctttaaaat 180
tgttcacttt gtggggtgat taaacaaaaa aacctcagcc attattctct aacagctgtt 300
gtgccttacc tcaataaagt gccttttacc ataacacagc atctttagac tctataaatc 360
totttotatt tattgtgttt aaatgataaa tgotttocaa taaaatgaca toatgggtot 420
ggagagtgat gttcattttc tgagttactc ttaaatttgg ttgatttgaa tttttttatt 480
aggargttgt ataatatgaa teteageeac aggetteteg ag
<210> 339
<211> 565
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (105)
<400> 339
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caggiticigi tiggicitag agaagcacag aaacaigati taaatigcia aaccigccaa 180
taccattaga aaaaaaatca gaaattteet tggcacaaaa eteteeattg gttataaaag 240
gactaagagg tggagaactg ttttatatat tttatataca caaagacatg tgtaaatgtt 300
tccagaattt gtcatagctt aactgaaaga aagtaaaagg atcacttagt gccttcttac 360
agtgaagtat aaggatcatt tagtgtettg tttacaattt agcaatagat tatetggtag 420
aatttggage agaaaggact cagttcatet catgggtaac tcaaccetaa tttgtcaaaa 480
ataaaaaaaa gtgacgtaaa aagagtteet ttaaataagt tgaaatgaet ttttagtaaa 540
gttttatttg caagctgaac tcgag
<210> 340
<211> 616
<212> DNA
<213> Homo sapiens
<400> 340
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acatgtaatt gctgaccagg aggtaatgga aactaatcga gttgaaagtg tagaaccttc 180
 agaaaatgaa gctagcaaag aattggaacc agaaatggaa tttgaaattg agccagataa 240
 agaatgtaaa teeetttete etgggaaaga gaatgteagt getttagaea tggaaaagga 300
 gtctgaggaa aaagaagaaa aagaatctga gccccaacct gagcctgtgg ctcaacctca 360
 geeteagtet cageeceage tteagettea ateceagtee caaceagtae tecagteeca 420
 geeteeetet cageetgagg atttgteatt agetgtttta cageeaacae eecaagttae 480
 tcaggagcaa gggcatttac tacctgagag gaaggatttt cctgtagagt ctgtaaaact 540
 cactgaggta ccagtagagc cagtcttgac agtacatcca gagagcaaga gcaaaaccaa 600
 aaccaggagc ctcgag
 <210> 341
 <211> 344
 <212> DNA
 <213> Homo sapiens
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 tectetecat cetgecatea etgacetgee teaatecetg tteaactete tettatteag 180
 totoctatgt ggattgtccc actgccttct gtcctctgcg cagccacaag gcagtctatt 240
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cagcctatag cagacaagct tttattagag cagacagact cgag
<210> 342.
<211> 286
<212> DNA
<213> Homo sapiens
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tgcagacagg atagcccttc accttaaata attcagtgca tatactccaa gaacaagaac 180
attititacg tgaccacagt gcataattat caaaatcata atggtgcata ctactatcca 240
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<210> 343
<211> 338
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (194)
<400> 343
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aggggaccca ggcgccgtcg cttcggcgga gcctgggctg accagccagg acagcggggt 120
aaacccgaac aattetgege gaggtaggga ggccatggeg teeggeagta actggetete 180
cggggtgaat gtentgctgg tgatggccta cgggagectg gaettgaaag aggagattga 240
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tgctagacta ctacaactgg aaacccaggg ttctcgag
                                                                   338
<210> 344
<211> 277
<212> DNA
<213> Mus musculus
<400> 344
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tttcttcctg agcaacatga ttgagaacca gtgtatgtca acaggtgcat ttgagataac 180
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                                                                   277
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<211> 291
<212> DNA
<213> Mus musculus
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ttacagtgca caccaagacc acactgtcca catttcagag cccagagttt tctgttacaa 180
ggcaacatga agactttgtg tggctgcatg acactcttac tgaaacaacg gattatgctg 240
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<210> 346
<211> 438
<212> DNA
<213> Mus musculus
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agagacatca acceteatae tecaatteaa caateetggg aagtgettaa tgaggagggg 180
gacactgtat ggtcgaccac cgcagtacaa cccccatgga cctggtggcc cgacctcaca 240
cctgatattt gtaagttagt agcagggtda cttacctggg acctccccga ccatacggac 300
cttcataaac caccacctga taaacagtgt gtcccgagcg ggatagggag cacgtttgga 360
tgctcaggac agttctaccg agccaatctt cggtctgcag aattttatgt ttgccctggc 420
caaggccaac cactcgag
<210> 347
<211> 664
<212> DNA
<213> Mus musculus
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<221> unsure
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<221> unsure
<222> (108)
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<221> unsure
<222> (125)
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gtgtnccacc gttcggtccc agaggttccg aggaaggata cagcaggaac gaaaaacat 180
cagacccaat attatecttg tgeteactga egaccaggat gtggagetgg gtteeetgea 240
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attaatcaag aattetegtt tetataatta caetgtttgt egeaaeggea teaaggagaa 600
gcatggattt gattatgcaa aggattactt cacagactta atcactaacg agagcatact 660
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cgag
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<211> 459
<212> DNA
<213> Mus musculus
<400> 348
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atagttatga atttgctcct catctggctc ccctggggcc tcctcaccac aacctttgga 180
acttcacagg cagagatgga gttggtccag cacattggtg teeetgecag taagatcate 240
tgtgccaacc cctgtaagca agttgcacag atcaagtatg ctgccaagca cggggtgagg 300
ctgctgagct tcgacaatga agtggagctg gccaaggtgg tcaagagcca ccccagtgcc 360
aagatggttc tgtgcattgc tacccaggac tcccactctc tgaatcacct gagcctgagg 420
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 <210> 349
 <211> 568
 <212> DNA
 <213> Mus musculus
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<221> unsure
<222> (120)
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<221> unsure
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<221> unsure
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<222> (478)
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tgaggcttga tggtgcagtg gtcttgtcaa ggaagcatac ggaggtggca tgtagtgccg 240
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gccatagcca totattgata atggctgagt cggggcagca gcagcctgat ggccaaagac 360
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caccgacggg accagaagtg gcatgacaaa cagtacaaga aagcccactt gggcacancc 480
ctgaaggcca atccgtttgg gggtgcctct catgcaaagg gaattgtgct ggaaaaagca 540
                                                                   568
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<210> 350
<211> 447
<212> DNA
<213> Mus musculus
<400> 350
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gagtctgtag atgaggtcac ggggccatgt agctgccagg actgctccat cgtctgtggc 180
cccaagcccc agcccccacc ccctcctatg ccctggagga tctggggctt ggatgccatg 240
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geagtgtggt gecaeagaag geggtaettt gtgtetgagt acaeteeeat tgaeagtaac 360
arcgeetttt etgtgaatag cagtgacaaa ggggaageet eatgetgtga eccaettggt 420
gcagcatttg atgactgtca actcgag
<210> 351
<211> 156
<212> DNA
<213> Mus musculus
<400> 351
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acttgatcac cagacagaag cagcttttt atcttcctgc caagaagaat gtggattcca 120
ttttggagga ttatgcaaat tataagaagt ctcgag
 <210> 352
 <211> 434
 <212> DNA
 <213> Mus musculus
 <400> 352
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ctggccacgg tcggagctgc tacaggccca gaggctgacg ttgagggcac agaggaggtt 180
cacagagaga qtacatttac ctcaacaggt acaagcgggc aggtgagtcc cccgacaagt 240
gcacctacac tttcattgtg ccccagcagc gggtcacagg tgccatttgt gtcaactcca 300
aggageetga ggtgeacetg gagaacegtg tgeacaagea ggagetggag etgeteaaca 360
atgagetget taageagaag eggeagateg agaegetgea geagetggta gaggtagaea 420
gaggcactct cgag
<210> 353
<211> 471
<212> DNA
<213> Mus musculus
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<213> Homo sapiens
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aaattataaa ttggagaggt tggaataatt acggtcatat ctctagaaac acaagtcttt 180
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cetgaggtgc tectgetett cetttgccaa ttetgeetee gtetteatee tgttagaggg 480
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ggaagtteta caattetaat teagttitti caagggggaa catggeaaag gigticagti 180
tcatccttgt taccaccgct ctgataatgg gcagggaaat ttcggcgctc gag
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<213> Homo sapiens
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gcatttgtaa ttgcttgtgt gcttagcctc atttccacca tctacatggc agcctccatt 180
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aaggcacttt ttgtttttat ggcattatcc tttgcccgtg atgaaatcat ctggctactt 120
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<212> DNA
<213> Gallus sp.
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gcacgctatg gggttttggc tggtatcagc attactccac caaggggctg tttgctgtct 180
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<212> DNA
<213> Gallus sp.
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<213> Gallus sp.
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<213> Gallus sp.
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<211> 272
<212> DNA
<213> Gallus sp.
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<212> DNA
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<212> DNA
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<212> DNA
<213> Homo sapiens
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<212> DNA
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<212> DNA
<213> Mus musculus
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Artist Control

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<211> 159
<212> DNA
<213> Mus musculus
<400> 394
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<212> DNA
<213> Mus musculus
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<211> 725
<212> DNA
<213> Mus musculus
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tgcacacett eccagetete etgeagtetg geetetacae ceteageage teagtgactg 660
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<213> Mus musculus
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<211> 404
<212> DNA
<213> Mus musculus
<400> 398
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tagaaggcac tectecagee ttageeteeg tgeetggagg agetgeeata eccageacet 240
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<212> DNA
<213> Mus musculus
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<211> 435
<212> DNA
<213> Mus musculus
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aaagatgtca acacccgctt cetectatat actaatgaga acccaaacaa etttcaagaa 240
gttgccgcag attcatcaag catcagtggc tccaatttca aaacaaatag aaaaactcgc 300
 tttattattc atggattcat agacaaggga gnagaaaact ggctggccaa tgtgtgcaag 360
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<211> 751
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (402)
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<221> unsure
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<211> 114
<212> DNA
<213> Mus musculus
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<211> 570
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<213> Mus musculus
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<213> Mus musculus
<400> 405
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<211> 545
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<213> Mus musculus
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<221> unsure
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<211> 311
<212> DNA
<213> Gallus sp.
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<211> 382
<212> DNA
<213> Gallus sp.
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<211> 521
<212> DNA
<213> Gallus sp.
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<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<211> 439
<212> DNA
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114

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<212> DNA
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<212> DNA
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<210> 437
<211> 460
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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acttetecag agattgacae caagcattte attagggeee actttgtgae tattetgtta 120
gtcacaaatc taccaaatta teccatagtt taacccatta eteettaaat atttatgtgt 180
ataggaatta cctggctata ttgttaaagt gcagttttct gtaggtcttc ccctctccc 240
tecectetae tggtetecee eccecaacte gag '
<210> 443
<211> 334
<212> DNA
<213> Homo sapiens
<400> 443
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gaggtcgaat aagtgcagga aaaggcacat aagcccaata agaataattt tgtgtagcag 120
gtaaatcagt gtgagaggaa actggtgaga cagaaagtat aaggaggaga ataattaaat 180
aaaacccagt gtaagcgaga ttgagtgctg aaggaggaag aqaaqaacag agggatgtta 240
ttgtcagget aatagaaate getgtegeet taatecaage etaegtttte acaettetag 300
taagcotota cotgoacgac aacacagact cgag
                                                                334
<210> 444
<211> 300
<212> DNA
<213> Homo sapiens
<400> 444
atgtatacat ttccagtttt aagattttgc gagggtctta taagaaaaca aaaattccct 120
caggetatag aattatgttg teatatatea gaaaagtaet gatgtateea tttatateea 180
atgegeaeca caeeggeaea ttgtgattta atteaeeget tgaatetata tttetaaeca 240
cagtgacttc agtaaaaata ccgtataatg aacatttcag cttcttctta cttactcgag 300
<210> 445
<211> 309
<212> DNA
<213> Homo sapiens
<400> 445
gaatteggee tteatggeet agtttgacea tttgtagtat acaeagtgaa acttgattet 60
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ctttcctttt cctatgtact tccttcatac ttgctttact gatcagccag gcaatagcca 180
tecaagaget agageatgaa acagggeeet ttecaagtag getetgggtg tectaageea 240
gcgtgtgccc tctggtttag tgagtgtaat agagtccctg gcacctttct ttgcaaatga 300
ggactcqaq
<210> 446
<211> 177
<212> DNA
<213> Homo sapiens
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<400> 446
gaatteggee tteatggeet aattgaatte tagaeetgee tggggetetg tettteattg 60
tgggagaga atgggggagt aatttttgcg tctctggaca gagccccagg gccgggaaag 120
ggcacacaat ggggttcttg atgctttctc ccttggctaa ccagaagatc actcgag
<210> 447
<211> 325
<212> DNA
<213> Homo sapiens
<400> 447
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gagatggtac ttttactatc cccattttat aaatgaggaa attgaggtat agagcagtaa 120
aataattttc ccggttaagc aggtaagtgc tacaactgtg attgacettt gaacetgacc 180
ccagageact gatgtaatct gtctgtaccc aaaatggttt cagtttatct ttattcaggc 240
gcagttcaaa gaatcttatc ctttgctttt taactactct attctccctg gtgactagga 300
tatettatac eccettgage tegag
<210> 448
<211> 299
<212> DNA
<213> Homo sapiens
<400> 448
gaatteggee tteatggeet aaatttaaat ggtgtataca ttetteaace tgaagttatt 60
tcagcatcag ctgatggaag taaaataaca gctcaagact cattggtggt acctattttt 120
cagatgtttc aagatagtgg ttttcagaaa aactggtctt ggaactcatt tttcaagatt 180
catecteaag tagtaaatee tgtgcaacag ccaggacaca gattgettat tetetggaga 240
atactgtaca aaaaaacttt atggtatcaa gcacaattaa atcgaagagt tcctgaagc 299
<210> 449
<211> 326
<212> DNA
<213> Homo sapiens
<400> 449
ctegagacte tgggagttea acaccaacet agcaacatga caaaaceceg cetetacaaa 60
cataaataaa aaacaaaaat cattaacctt gagtgagtca agttcatctg cagactgaaa 120
aaaataaagt gtaacagaat tttgatttaa aaaacgcttt caaaaaagca tttcaaaatg 180
ctctaagtat gtttcaaaaa tacacttaaa aatatgtttc caacacactg aagggattta 240
actaagatcc acaattacag ttacgataca aactgtaagc taaaaggcag caacttaagc 300
tgagacagtt actaacatcc ctcgag
                                                                   326
<210> 450
<211> 387
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (164)
<220>
<221> unsure
<222> (301)
<220>
<221> unsure
<222> (380)
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<400> 450
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aatattatga agtagaattc cagattataa taagttattt agccaaaatg atgactcaaa 120
aatttttaaa aaggcaaaaa cetttttea ttaagagaga aganteaget ttecaateta 180
ctcctgtctt aactgcctgt tttttggaag tttattctca aggtgcaaac aaaagtcttt 240
aattattett teetattaca tgaacatett atteaaggga gagaaageea aaatteacce 300
ntgatttagt ctacggttta catcaacccc aacttttaaa tgaaacctta tagatgattc 360
tctctgatct cagccagttn tctcgag
<210> 451
<211> 318
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (141)
<400> 451
gaatteggee tteatgeeta caggaatgea ttettgacat tteegaacae acattaagtg 60
aaaatgactt agaagaacta agggtagatc actataaatg taacatacag gcatctgtac 120
atgtttctga tttcagtaca nataatagtg gatctcaacc aaaacagaag tcagatactg 180
tgctttttcc agcaaaggat ctcaaggaaa aggaccttca ttcaatattt actcatgatt 240
ctggtctgat aacaataaac agttcacaag agcacctaac tgttcaggca aaggctccat 300
tccatactcc tcctcgag
<210> 452
<211> 467
<212> DNA
<213> Homo sapiens
<400> 452
gaatteggee tteatggeet aagaaactae agtaaactgt catecatgat eccaetgeag 60
agaaaaccat tgccgacatt tttgagcatt tcctaccagt tcccccttc caaagttgaa 120
ttatttataa accgtcactc tgaggaatgt tgattgtgtt cgtaagaaaa ctcatggctt 180
aggagccaga gtaagcagga ctactatgtt aaacagcagg tttgactaat atattttctt 240
aattgcatca aacactagtg ttatattaag tcaaaagtct tcacagatta tttttctcaa 300
gaggatttca gtgcttcagt gtgcacatta atatcagttc cacttgcttt tcagtgatgt 360
catagtaatg agacgttata agtgaataca aatctacctc taaagagatt attgatttgt 420
tttattttac ttaagatttg aattccaaat ccagtacaca gctcgag
<210> 453
<211> 322
<212> DNA
<213> Homo sapiens
<400> 453
gaatteggee tteatggeet agetteagtt tteatteate eteetgetea geactgteag 60
ccaagagett actcagcaga caccacatac tgcagcagtt cctagtgaga aaatctgtgc 120
cactagaaaa tgcttcacct ccatttcctc acctgggcag ttctctgttt aaaattgtgg 180
getgatttgg tetteetete etecteecae tgttactgee etgeageeet tgtteaggtg 240
tacagaccct tattctggcc tctagtgtcc ttgtctgtca tgacacaccc ttccgcccaa 300
atacctctga ccccaactcg ag
                                                                  322
<210> 454
<211> 263
<212> DNA
<213> Homo sapiens
<400> 454
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ttattccctg tctgtgtgca gaggggattc aacttcaatt tttctgcagt ggctctgggt 120
ccagcccctt acttaaagat ctggaaagca tgaagactgg gctttttttc ctatgtctct 180
tgggaactgc agctgcaatc ccgacaaatg caagattatt atctgatcat tccaaaccaa 240
ctgctgaaac ggcagcactc gag
<210> 455
<211> 536
<212> DNA
<213> Homo sapiens
<400> 455
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gaggtggctg gttgctcttt gaaggtcccc ctggatggta atcctggctg ctttctgcac 120
ttgtatataa agteeteece aagatggeet gtggtetgee tettggcaac caagaageee 180
gcagtgccat gtgacacctg aggcatggac tggagcccca aaggcagggt acacccttct 240
cotgaacotg ottittettt cotetatatg gotceatttg tggcaaagtt gttgcactga 300
aacttgtgca tgctgggcaa ggacaagctg gctcaaagag caaccagcca cctctgcaaa 360
ggtgtagcag gagccggtgt accagtcacc aattagcgtc cggacatgta catcacttct 420
tccaccctaa aggtagggcc acagtgccat ctgcttttct taaggcctct gctccatcag 480
caataaggtg gcagacactc aggctgtggg aacctggcca tccccacttc ctcgag
<210> 456
<211> 757
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (193)
<220>
<221> unsure
<222> (345)
<400> 456
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cacacggaga gacctggccg aggtcccagc cagcatcccg gtcaacacgc ggtacctgaa 120
cctgcaagag aacggcatcc aggtgatecg gacggacacg tacaagcacc tgcggcacct 180
ggagattetg canetgagea agaacetggt gegeaagate gaggtgggeg eetteaaegg 240
getgeecage etcaacacge tggagetttt tgacaaccgg etgaccacgg tgeecacgca 300
ggccttcgag tacctgtcca agctgcggga gctctggctg cggancaacc ccatcgagag 360
cateccetee taegeettea accgegtgee etegetgegg egeetggace tgggegaget 420
caageggetg gaatacatet eggaggegge ettegagggg etggteaace tgegetacet 480
caacetggge atgtgeaace teaaggacat ecceaacetg aeggeeetgg tgegeetgga 540
ggagctggag ctgtcgggca accggctgga cctgatccgc ccgggctcct tccagggtct 600
caccageetg egeaagetgt ggeteatgea egeecaggta gecaccateg agegeaacge 660
cttcgacgac ctcaagtcgc tggaggagct caacctgtcc cacaacaacc tgatgtcgct 720
gccccacgac ctcttcacgc ccctgcaccg cctcgag
<210> 457
<211> 897
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (7)
<220>
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<221> unsure
<222> (212)
<400> 457
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cgacagttcc agcactcgcc gagaccggcg gagaaaggca gctgagcccg gagaagagcg 120
aaatatgggg accegggeta aaageagaeg tegteettee egeeegetat ttetatatte 180
aggcagtgga tacatcaggg aataaattca cntcttctcc aggcgaaaag gtcttccagg 240
tgaaagtctc agcaccagag gagcaattca ctagagttgg agtccaggtt ttagaccgaa 300
aagatgggtc cttcatagta agatacagga atgtatgcaa gctacaaaaa tctgaaggtg 360
gaaattaaat tocaagggca acatgtggcc aaatccccat atattttaaa agggccggtt 420
taccatgaga actgtgactg teetetgeaa gatagtgeag eetggetaeg ggagatgaac 480
tgccctgaaa ccattgctca gattcagaga gatctggcac atttccctgc tgtggatcca 540
gaaaagattg cagtagaaat cccaaaaaga tttggacaga ggcagagcct atgtcactac 600
accttaaagg ataacaaggt gaagatgcca gatgtggagc tctttgttaa tttgggagac 660
tggcctttgg aaaaaaagaa atccaattca aacatccatc cgatcttttc ctggtgtggc 720
tocacagatt ccaaggatat cgtgatgcct acgtacgatt tgactgattc tgttctggaa 780
accatgggcc gggtaagtct ggatatgatg tccgtgcaag ctaacacggg tcctccctgg 840
gaaagcaaaa attccactgc cgtctggaga gggcgagaca gccgcaaaga tctcgag
<210> 458
<211> 520
<212> DNA
<213> Homo sapiens
<400> 458
geggggateg acaagetgee categaggag acgetggagg acagecegea gacaaggtet 60
ttactaggtg tatttgaaga agatgccaca gctatttcca actatatgaa ccagttgtat 120
caagctatge ateggattta tgatgcacag aatgaattaa gtgcagcaac acacctgace 180
tcaaaacttt taaaagaata tgaaaaacag cgttttccat tgggaggtga tgatgaagtt 240
atgageteta cattgeaaca gtttteaaaa gttatagatg agettagete ttgteatgea 300
gtgettteaa eteaaettge tgatgeeatg atgtteeeea ttacecagtt taaagaaaga 360
gatetgaaag aastaetaae attaaaggaa gtattteaga ttgeaagtaa tgateatgat 420
gctgcgatta atagatatay ccgtttatca aaaaaaagag aaaatgacaa ggtgaagtat 480
gaagtaacag aagatgtgta cacatccaga aagactcgag
<210> 459
<211> 525
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (53)
<220>
<221> unsure
<222> (57)
<400> 459
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ttttaagggc tttttctcag tcaatagttt gtacaaactg gttagtttaa cttcattacc 120
catttcatta aagttgatgg gtcgtgtgat gagatgcatt taaggccgat agtgatagat 180
gtttttttta tttcttgaac acaggctttg tctgaatgat gttctttat ctcttgaaca 240
caagetttga atgataacta caggttttaa gtgctgttac attaatacca taatgtgatg 300
tgttagaaac aaagggatat ttcaaaggta gatatttgaa aattctctag tctcaatatg 360
tatgtgtatt gaatatactc taaaaataaa tgtgcaattt gctagtagga caatgcagtg 420
actgactage attaggtatg tttcttttat atcctageta tgtcccactt tcttctaagt 480
gcaatcettt catgttcact tgctgtttta ccccatctac tcgag
                                                                  525
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PCT/US99/24206

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<210> 460
<211> 617
<212> DNA
<213> Homo sapiens
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gaattcggcc aaagaggcct acagaataat ggaatataat atgtcttcat aatataacaa 60
cactaataca ctaatagtaa gattaagtta ggcagtcttc taccaaatgt gtaatggaga 120
ttgcctcaaa attgtgtcca cataatccac gctcatcttg caaagcgcta tttcaggcac 180
atcattggaa tacaggaagt agccctgcac ctgccagtga gctcgccatt cactgattgg 240
aagagtgacc tggcatcttg gaaatcattg tgtgtcttca ggagaatgtg cagtgtcttg 300
taacaactaa ttataatgca aattagggct acattgtaat ctgctttgtt aatgaaaatg 360
ataaaacaga atattgacaa gctaggacac ctgtggtatc tttaattgta tctccttcag 420
aagtttgctt cttatggtat aataaagtat ggaagaatat tgagtatatg tttactctgg 480
gcctgggaga acttaacttt ctagagcagt ttgttgactt gtgtgcaatg gggagaggta 540
ccatgatgac actcacaggg agccactgtt cactgacact tggaagcggt cattgttaat 600
atcacggacg actcgag
<210> 461
<211> 886
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (199)
<220>
<221> unsure
<222> (232)
<220>
<221> unsure
<222> (249)
<400> 461
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atttcaatac tttgtatttt acttgaaatt accettagta gcatettttt tttcctgtct 120
gaaagetttt gtgtggatga gaagggacat tteattteet eeettaacaa agtgteatte 180
tgaggttctc atgtgtgtnt ttggaaatag agatactggt tttgtagagt tngcctttgg 240
gtatgtttnc tttttttttt aaatctccaa ggaagagaac tgactaaaat agtaggaaca 300
tgaaagtatt aaatgccaat taatttgttg tagtaaagta tcttcattag cgttatactc 360
catcatatct ggtgtaaact gctcacagaa aaccctatga aaccaaaggg ggaccattca 420
ggtctaaaaa gcgacaggtc cgagactggg tctgtcacct gggcattttc aaagaggaca 480
ttttgaagaa tttgcatatt cagattttta aaatgcactt aacatacttc attacagatt 540
ctaatccgaa tcatttacct ttctgtatta accttggcct gtcctaaaaa gagaacgact 660
gtttcatcat gagttgctct gagttttgtt aatgtttgtg ttggtggatt gacggttaaa 720
tgaagcattt agetggaata tgaactttgg gagttttcat gttgteetgg atttetettt 780
gtaaaccttt aaaccttagc ccctggttga ttgtgttaaa cccattatga gaatgttatt 840
taaagttgta ttataattgc aacctccatt ctagacctgc ctcgag
<210> 462
<211> 396
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (146)
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WO 00/21991

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<400> 462
gaatteggee aaagaggeet agteaacatg aaggetetea ttgttetggg gettgteete 60
ctttctgtta cggtccaggg caaggtcttt gaaaggtgtg agttggccag aactctgaaa 120
agattgggaa tggatgaccc ctggtngaac cctacagtcc cctactcaca acccctacac 180
tetectacce atgacecetg geagaaccet acagteceet acteaegace cetacactet 240
cctacccatg acccetggtg gaaccetaca gtcccctact cacgacccct acactetect 300
acceatgace cetggeagaa ceetacagte ecetacteae gaceeetaca gteecetact 360
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<210> 463
<211> 406
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (259)
<220>
<221> unsure
<222> (386)
<400> 463
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gacaaaaaca atgtccttgc cattcgccga gaaatcgtgg ctctgaagac caagctgaaa 120
gagtgtgagg cctctaaaga tcaaaacacc cctgtcgtcc accctcctcc cactccaggg 180
agetgtggtc atggtggtgt ggtgaacatc agcaaaccgt ctgtggttca gctcaactgg 240
agagggtttt cttatctana tggtgcttgg ggtagggatt actetececa geatecaaae 300
aaaggactgt attgggtggc gccattgaat acagatggga gactgttgga gtattataga 360
ctgtacaaca cactggatga tttgcnattg tatataaatg ctcgag
<210> 464
<211> 395
<212> DNA
<213> Hcmo sapiens
<400> 464
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atagattttt gggagtttga ccagagatgc aaggggtgaa ggagcgcttc ctaccgttag 120
ggaactetgg ggacagageg eeceggeege etgatggeeg aggeagggtg egacecagga 180
cccaggacgg cgtcgggaac cataccatgg cccggatccc caagacccta aagttcgtcg 240
togtcatogt ogoggtoctg otgocagtoc tagottacto tgocaccact gocoggoagg 300
aggaagttcc ccagcagaca gtggccccac agcaacagag gcacagcttc aagggggagg 360
agtgtccagc aggatctcat agatcagaac tcgag
<210> 465
<211> 292
<212> DNA
<213> Homo sapiens
<400> 465
gaatteggee aaagaggeet actateeate tatetateta tecatetate catetateee 60
tetetteetg caataaaata tecattgagg teacatcatg tgatcgactt cetecetete 120
tcaatctccc tacaagttcc gaaggaaata agtacactct gttcaaacca cttcctccta 180
tetgagaace getaagggag gaggeaattt gattatggta attetageta agacageaat 240
tttaggggtt gggggctcag tggttctctt ttgttgtcaa acagctttcg ag
<210> 466
<211> 408
<212> DNA
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<213> Homo sapiens
<400> 466
gaattcggcc aaagaggcct aggtacagta ggtttataaa cagaagttta aacttatttc 60
tttacatatt catcaatgtc tgaagaagtt acttatgcag atcttcaatt ccagaactcc 120
agtgagatgg aaaaaatccc agaaattggc aaatttgggg aaaaagcacc tccagctccc 180
teteatgtat ggegteeage ageettgttt etgaetette tgtgeettet gttgeteatt 240
ggattgggag tettggcaag catgtttcac gtaactttga agataqaaat gaaaaaaatg 300
aacaaactac aaaacatcag tgaagagetc cagagaaata tttctctaca actgatgagt 360
aacatgaata tetecaacaa gateaggaac etetecagea caetegag
<210> 467
<211> 487
<212> DNA
<213> Homo sapiens
<400> 467
gaattcggcc aaagaggcct aaaaagagaa aaaagaaatt tagaagaata acaagttatt 60
ccaaatgaag gcgtaagaaa gggaataata acaataataa gaggagttgt tcatgaggaa 120
aaaccaaagc ttgaaaattc aacaaagcca gtgaagctca ttcttgaaaa catgaatcac 180
actcatgaat totaactaca atgaaaaaga gaaagaaaga goaggoatgo atttocatat 240
gggagtgagc cagcagacag ccctacagat cgtacacacg ttttccaaaa ctaacaatgg 300
aacaggegge aaacetatge caatatacta gaaattgeag attaaataga tgaaatatte 360
taaactggag tttacataat gaacataaga gtaatcagag aatctgactc attttagatg 420
tgtgtgtgt tgtatatata tgtgtgtgtg tgtgaaaaac attgactata ataaaaataa 480
tctcgag
<210> 468
<211> 600
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (503)
<400> 468
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ttttggtaat gttttaaatc cacagagaga cagttagagg atgaaaactg gaaactgaag 180
aataatttta agaatgetaa getetetget ttatttatgt aagttacatg acataaaatg 240
tragggaagt gttttgarta ttartgtara aaataggaag aarraartra gtgaaraaat 300
ttgccttctg tttgttgagt cagttatttt acaaaaaaaa ctattgctta ttttcagtag 360
acatttttag ttttccatga atactgaaaa attaaagact ttaagttctg atcatgaaaa 420
acaaacaaat ttatttcacc aaaaatattt tcaacttagt tattattaga taaacatata 480
acttcatata ttaaaatagt agnaaagcaa ggttaatagt atattttatt acattaagca 540
aattaatgta tatatgccat aggcatcaat atttagaatg tttaattagc actactcgag 600
<210> 469
<211> 887
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (367)
<400> 469
gaatteggee aaagaggeet atgetgagtg gaaggaaaca geeaggtgge tgaagtttga 60
agaagatgtt gaagatgggg qagaacgctg qagcaagcct tatgtggcaa ccctttcatt 120
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gcacagectg tttgagetaa ggagetgeet tattaatgga acagteetee tggatatgea 180
tgcaaatagc atagaagaaa tttcagacct gatcctggat cagcaagaac tgtccagtga 240
cctgaatgac agcatgaggg ttaaagtgcg ggaagccctt ctcaaaaagc atcatcatca 300
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gaacaatttg ctaaacatga gaaatcactc actttgatta tgtatagatt acataggaag 180
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cagaagacta gaagtttegg geegggegtg gtggetegeg cetgtagtet tgaacteetg 180
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<213> Homo sapiens
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<212> DNA
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<212> DNA
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cetectgetg gegetteete aatacteeaa ggagageatt egggeteetg ggtttggtat 360
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gcattttaac tttacatcta caagagtgtg gtacagatta agtccttgat aatcatgttg 180
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<212> DNA
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<212> DNA
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cacaagtcag gccgggaagt gctgggatac caatggaagt tggcagttat ccaaatatgc 180
eccatectea gecateteae cagececetg gtgccatggg aateggacag aggaatatgg 240
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eccatectee etgaagagga tegeegtggg catgttettt gteatgtget cageetttge 300
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<211> 289
<212> DNA
<213> Homo sapiens
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<210> 512
<211> 577
<212> DNA
<213> Homo sapiens
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<212> DNA
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ettecttece tteccettee tacaaacgtg aactettaag tetttactet etggtettea 180
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<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<211> 342
<212> DNA
<213> Homo sapiens
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24641 in 571

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<212> DNA
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accegagega getagaggge ggegggetge tgeacgagat ttteacgtet ecteteaace 180
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<212> DNA
<213> Mus musculus
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<221> unsure
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<221> unsure
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<213> Mus musculus
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<220>
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<220>
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accetegett cactgggage ttegacgntg acgetgagat ccacagggae ccetatggag 300
aagaagcaga cagacgcagc atccacagtg agcactcggc acggagcctg cgcagcactc 360
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<212> DNA
<213> Mus musculus
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<210> 570
<211> 280
<212> DNA
<213> Mus musculus
<400> 570
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ategacatac etgatgeact cagtgagaga gataaggtea agtttacagt geacaceaag 120
accacactgt ccacatttca gagcccagag ttttctgtta caaggcaaca tgaagacttt 180
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<213> Mus musculus
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<212> DNA
<213> Mus musculus
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<213> Mus musculus
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<213> Mus musculus
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<211> 317
<212> DNA
<213> Mus musculus
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<211> 397
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<213> Mus musculus
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<213> Mus musculus
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<212> DNA
<213> Mus musculus
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<213> Mus musculus
<400> 587
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<210> 588
<211> 558
<212> DNA
<213> Mus musculus
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tgtatcattt gggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaagggt 360
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<213> Mus musculus
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cagegootge ggtecateca gactecatgg categotace geceacteeg gtecetgttg 240
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acaacagaaa ggaggcagag gggctgcagc cggcggaaga ggaggtgcta gggggcgtgg 180
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<213> Mus musculus
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<211> 308
<212> DNA
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<211> 278
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<213> Mus musculus
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<210> 614
<211> 344
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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and the second of the

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<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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ctgtaaaacc tttgacctgt tcacaccgtt tagtgtgggg cttgtctacc tgctgtactg 180
ctgctttgaa cgagtttgtc tcttcaagcc tattaccagc cgtcctgcca actcagagag 240
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agtgaatatt aaactcaatc agctgcggaa cacggattcc gacgtcaact tggtggtccc 360
cctggaggtg atcaagggag accatgaatt tactgactac atgatacggt ccaatgagag 420
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<212> DNA
<213> Homo sapiens
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gagetgggat teagtggttg gtttettgaa aaagetaggt tetttgeeta acageagett 180
ageteeteaa tttagggaat gaaageagga atgaaaatgg ceagagtttt egeteeteag 240
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ggaaaggaga atttttagac ctttaaagca gagaaattac tggtgaatca tgtagcacaa 360
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ttgtagtaaa tgattettat taetggaagt gtaagtggag tgttaeteac tagttattta 480
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<213> Homo sapiens
<220>
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ctcccctgta aggcccataa aagcctcagg ctcaaccaga gcagggcaga ggaaggagag 180
acatenggat gaccagetgt agagaggage taccetetet agggeeteet etetgetgag 240
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gcctcctctc tgctgagagc tgcagagaca atgggacaac ctggctgacg agaggagcca 420
cccactctag ggcctcctct ctgccgagag tcgaacactc aacaagatga cctgcctaca 480
gagaggaact geccactgca ggteteetet gagetgetet gaeacteagt aaageteete 540
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<210> 630
<211> 377
<212> DNA
<213> Homo sapiens
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ctaactccac atctcctcag acctccaaaa tagtttctat aggactaaat ttacctctta 180
caggtgagtg gagtccttct aggagacagg agttcaaaat cttgcccctt ttgctatttt 240
gaaaaacaac agcacactgt tgcccatcat aataaagagt atttgttagc taatagatgg 300
ttgtactgat ggcttgtttt tcattttttt tgtgcttttt ggtccatcta ttaataaaaa 360
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377
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<212> DNA
<213> Homo sapiens
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tggagtttgg catgatgatc atttttgctt atctgcctta tgggcttgca gaaggaatct 180
cactctcagg catcatggcc atccttttct caggcatcgt gatgtcccac tacacgcacc 240
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<210> 632
<211> 144
<212> DNA
<213> Homo sapiens
<400> 632
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aaaaggatga tgggacaact cgag
<210> 633
<211> 168
<212> DNA
<213> Homo sapiens
<400> 633
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gtettttgca gagtggaggt ttttaatttt aatgaateca acctegag
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<211> 204
<212> DNA
<213> Homo sapiens
<400> 634
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tatgeteate cettetatat ttgtgatget caagatteag tecaaggeet cegtttteet 180
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<210> 635
<211> 556
<212> DNA
<213> Homo sapiens
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cattecetga eccageceta gaateagaca tttetecaag ggacectage ttattttatt 180
ggagaatggc attagaaacc aatatetgaa ttetgggtat tttattacta etgggtegee 240
tttcctcaag gcccactcag ctgacagagc aacaacatat atgtatctac gctaactgat 300
gtgcacacaa gtgtccataa atacctctag gtatatccat ctctattaaa gtaaatatga 360
gttcatattg atgtttccaa ctgtcaacct gtactacatg gatcattctg gcctccctta 420
 caccttgcac accggtactc tecaacteeg acagtgaaaa acctagetga tgecataage 480
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<210> 640 <211> 183 <212> DNA <213> Homo	sapiens					
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183
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tgccagtaaa atgaaacatt gttctgcctt ttcatttctg tatttaattt actactttca 180
gtactatgtt ggcctgaaga catctaagct ctctcaagat acggaggtac ggttccatga 240
catttettee etatetgtea gttttgaaac tteaaatgeg tgtgagatae atgtgteett 300
aaaagagtet eeggaacteg ag
<210> 642
<211> 148
<212> DNA
<213> Homo sapiens
<400> 642
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tactgatcag agetttacta gaatttttet ettettttt aaaaetaaaa egtggaaaae 120
taagaagatg ttaagggtgg ttctcgag
<210> 643
<211> 326
<212> DNA
<213> Homo sapiens
<400> 643
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ggcccgcgcc gtaagcacca cgttcgggtg cagggtcaac gtggccatct gcctccaggg 180
cacagetgge ceggacecca caacegteta egtggacatg egggeaetge gecatgacag 240
ggttcgtttg gtagaacggg gttctccgca cagcctgcca ttgatggagt ctggaaagat 300
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cctcccggc gtgaaggtca tcatcg
<210> 644
<211> 130
<212> DNA
<213> Homo sapiens
<400> 644
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tectagetgt eccetggegt ecteaceaac ttttettaga gacatggtet cactetgtea 120
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ctggctcgag
<210> 645
<211> 559
<212> DNA
<213> Homo sapiens
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agtettggca tttatetttg tagettetgt catetggete etetttgaca tggcagetet 120
ccgcctctca ttcagtgaga tcaacactcg ggtcatcaag gaagacattg tgaggaggga 180
gcggatagga ttcagagttc agccagacca aggaaaaatt ttttacagca gcataaaaga 240
gatgaaacct cccctaaggg gacatgggaa aggggcatgg ggcaaagaga atgttagaaa 300
aactgaggag agtgtgctca aggttgaggt ggacttggac caaacccaga gggaaagaaa 360
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gaccetecet gtgactecta acaagcagaa gacagaeggg agaggcacca aacetgaage 480
etecteteae caggggacae caaagcaaae gacageteag ggggetecaa agaceteatt 540
catagcagca gcactcgag
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<211> 215
<212> DNA
<213> Homo sapiens
<400> 646
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tetttatgat aggaettete agagetttta geattetaat geagagtgga aatgtgaatg 120
gcaggattca gtataatcag cacgtcccaa ctctatctga acacagaact cttgttctgc 180
atatcatcga tttgcacacc ctggaacaac tcgag
<210> 647
<211> 123
<212> DNA
<213> Homo sapiens
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agtaaataaa taatetttge tggeaggaet atgetgaate teettaggea etatetaete 120
                                                                   123
<210> 648
<211> 149
<212> DNA
<213> Homo sapiens
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tatttgtgga aaagatcggg ggcctcgag
<210> 649
<211> 503
<212> DNA
<213> Homo sapiens
<400> 649
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agctgggaga gcggggtccg ggtatttgat gagctgctcc tggatgcaga tttcagcgtg 120
aacgcaggca getggatgtg getgteetge agtgetttet tecageagtt ettecaetge 180
tactgeeetg tgggetttgg ccgtcgcacg gaccccagtg gggactacat caggegatac 240
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tcaattcaga aggcagccaa gtgcatcatt ggtgtggact acccacggcc catcgtcaac 360
catgccgaga ccagccggct taacattgaa cgaatgaagc agatttacca gcagctttcg 420
cyctaccygy gactetytet actygeatet gtecetteet gtytggaaga ceteagteae 480
cctgtggcag agcccagctc gag
<210> 650
<211> 258
<212> DNA
<213> Homo sapiens
<400> 650
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ggacatacaa aagaagataa tcaaatgtta ctttgggtac ttgaacactt gctaagagca 120
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tgcatcctgc agtcagtaac attaccatct atactcagag ggcaaacgct aatttcaaat 180
ccagagcaat gtcaaggatt tatcactgca acccaaagta tctttgctat caaagacagt 240
gggggcataa aactcgag
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<211> 175
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (128)
<400> 651
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gaaaacgatg cttcatcatg ctcttctcca gtgtgcctgt tttccacaga tacagctttt 120
attetgtnae ttetteetea etecetetea taccatecce acceacaace tegag
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<212> DNA
<213> Homo sapiens
<400> 652
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atatgtettt tgttettteg tggtgeteca tgaaaaaatt gaetgettta geteacaact 180
                                                                   197
caactgccac actcgag
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<211> 206
<212> DNA
<213> Homo sapiens
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atcacctaag aggaaaacta agttatttct gactttttcc tttactttat ttccccaaag 120
ggaaaccagt catgaaattt aagacactct gtctacttag cattcttcct ccttttatta 180
                                                                   206
tttccaccat gccccaatct ctcgag
<210> 654
<211> 213
<212> DNA
<213> Homo sapiens
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atgttaaaat tgattttttt aaatgatgtg gagcttttgg gtctatttgt ttattcgatg 180
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<211> 207
<212> DNA
<213> Homo sapiens
<400> 655
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cttgagaaag acaattgtct gactctgcct tgtctagaga tatttgccat gggaattcaa 120
tatttgaagt ctgtcatatc tttattgccc atgatgattg tatttaataa cttcgaagaa 180
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207
aataaatgta tcccacaacc cctcgag
<210> 656
<211> 337
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (26)
<220>
<221> unsure
<222> (32)
<400> 656
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gecetecace aacatggeag eccaeagagg etactgagga ggttggaggg ggeeteaggt 120
ggaaggatta gcctggccag gcacagagtc cctgaaaagg gatgagaagt gaagaaaacc 180
tgggataggg tggagtgaga gctcgccatt tctctgccaa gcaggacgca agccatcttc 240
tgcaagcagg aggtggagaa gtgaaggaagg gtgaaggttt ggcctgagta gagtagtcag 300
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<211> 199
<212> DNA
<213> Homo sapiens
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cagttgctgc tcaatgacac ctgcagacac tgagttcagc tttgtccctc cgctggatca 180
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                                                                   199 -
<210> 658
<211> 335
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (297)
<400> 658
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tgctgtctct ggacttgctg accccaccca tcgctcctct gctttgcttg atcccttcag 180
gettetette aagtetetet geaaagatge etgeetetga acaeteaagt ggeteeaett 240
gtcccctcct tcccctgctg ttactgtacc tgctactgtc cccccagggg gagcttngcc 300
                                                                    335
tctgtttgtc ttccatcccc agcaccaaac tcgag
<210> 659
<211> 152
<212> DNA
<213> Homo sapiens
<400> 659
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gagaagetge teattggeea ateatteteg ag
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<211> 296
<212> DNA
<213> Homo sapiens
<400> 660
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ggtgtctgtc ctaattcctt tctcactcac cgatgctgaa tacccagttg aatcaaactg 180
tcaacctacc aaaaacgata ttgtggctta tgggtattgc tgtctcattc ttggtatatt 240
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<210> 661
<211> 430
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (41)
<400> 661
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catgaatgca tatttegttt gtggeagttt aaatattaca etttgettea atgetgtetg 180
ctggttacaa atagcccagg gccctgctcc tgatcacagc tcaaaggaag gctgcctaca 240
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acagetegag
<21.0> 662
<211> 176
<212> DNA
<213> Homo sapiens
<400> 662
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aaateteatt tatttttgge agatateetg tgeageaaaa ateaagtgaa ttteeetett 120
ccccactcct caatttaatg ctgtactcaa aatggctaaa cgcaatactt ctcgag
<210> 663
<211> 326
<212> DNA
<213> Homo sapiens
<400> 663
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gtaatcgcaa aacccatttt ggagcaggaa ttccaatcat gtctgtgatg gtggtgagaa 120
agaaggtgac acggaaatgg gagaaactcc caggcaggaa caccttttgc tgtgatggcc 180
gcgtcatgat ggcccggcaa aagggcattt tctacctgac ccttttcctc atcctgggga 240
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<210> 664
<211> 201
<212> DNA
<213> Homo sapiens
<220>
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<222> (176)
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gccatgttgt aatttcagct gacaagaagc attagcatta tcgcacactt tgtganttaa 180
                                                                   201
gtaatgattt aattactcga g
<210> 665
<211> 132
<212> DNA
<213> Homo sapiens
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tcactaagtt ttatgagcat aaacattaaa atgttacata aaatatacca taatttactt 120
cactcactcg ag
<210> 666
<211> 469
<212> DNA
<213> Homo sapiens
<400> 666
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aaggaccttg aaattaactg atagtttgaa acatatagca gagaactgat aatcttttt 120
taggtcatga aagtaaaatg tttaagatac aatatttttg gtctttttag taaaggcatt 180
tgttttcagt aaagatactt cttttttaaa ggagagaatt taggattacc atttggtaag 240
agagtatatg gaacaagaga tattaataag agaagtagag taatggaaag atctgaaact 300
ggtattgage tgteteacte egttgeecag getagggtga agtggeatga teteggetea 360
ctgcaacctc tgcctcctgg gctcaggctg ggactacagt cacgtgccat catgcctggc 420
                                                                   469
taattttttg tatttttgt agagatgggg ttttgccact agactcgag
<210> 667
<211> 140
<212> DNA
<213> Homo sapiens
<400> 667
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atttcaggat gtcaaacttg gcctcctttt tttggttttc atttttctta gtattaccag 120
ggtgtgcaga gcggctcgag
<210> 668
<211> 690
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (139)
<220>
<221> unsure
<222> (287)
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<221> unsure
<222> (305)
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<222> (310)
<400> 668
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aaacagtaga gcaacaatnc attcattcat aaaagtaatt acatgccatc taactaatca 180
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aaggacatcc tgatagatat ttttctgcat agttatgcaa gtaagtccat gggatcaaca 600
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<212> DNA
<213> Homo sapiens
<400> 669
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tgacagccat ggagaggaag gagagccaag ctccatcatg aacgtgcctg gagagtcgac 300
tetacgeegg gagtttetee ggeteeagea ggaaaataag ageaacteag aggetttaaa 360
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<210> 670
<211> 441
<212> DNA
<213> Homo sapiens
<400> 670
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gttgcttttg tgatggtaga agatggttgg aaacttctga agcctgagga ggtagtcata 180
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gttgaagtgt tgagccgcat atttaaaaat tctgagggca aacaattaga tcctaatgaa 360
atgcgtacag ttaagagagt agtttctggt ctgttcagga gtctacagaa tgattcagtc 420
aaggtgagga gtgatctcga g
<210> 671
<211> 175
<212> DNA
<213> Homo sapiens
<400> 671
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gatgatgatg atggtggtgg ctaacactta ccaatgcttc ctcagagctc tcgag
<210> 672
<211> 333
<212> DNA
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<213> Homo sapiens
<400> 672
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atcatttttg ctcagtttta ttggccagag caagtcttgc agcgaaagct aacttgaaag 180
agtaaagtct gatcatcctg atacctggaa taggacctcg atattggtaa atagtcatac 240
acatttcatt gttgcatacc aacagacaca cactcacaca cgtatagaca tttagcctta 300
agttcaaata tgaaattgac cagaggactc gag
<210> 673
<211> 354
<212> DNA
<213> Homo sapiens
<400> 673
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ggtttttaat cattttgtaa tatgaattat ttttgtgtac taataaaaat aacaacatcc 180
cagaaatgtg agttttcttt aattattttg atgtccctct tgtggtttgg attggctcat 240
coccttactt cotatattgt cotttcaggt toctacagtg tggggtcttg cagccagcct 300
geceteacte etaatgatte attetecaeg gtaagaaaaa geceaaeeet egag
<210> 674
<211> 291
<212> DNA
<213> Homo sapiens
<400> 674
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ttgtctgctt tatttagtgg tgtataccaa ttgcctagaa cagtgcctgt aagagaacgg 180
tectcagtga gttggatetg ecaggtggca tetggagtgg ttggtgcaga agtaaaagaa 240
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<210> 675
<211> 159
<212> DNA
<213> Homo sapiens
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catggeteac tgeaageetg cateteegg teeetegag
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<211> 274
<212> DNA
<213> Homo sapiens
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ggatgaatgc cagettteag acagageeea ettagettgt eeacatggat etcaatgeea 180
atcctccatt cttcctctcc agatattttt gggagtgaca aacattctct catcctactt 240
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agcctaccta gatttctcat gacgagtact cgag
<210> 677
<211> 100
<212> DNA
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<213> Homo sapiens
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<210> 678
<211> 473
<212> DNA
<213> Homo sapiens
<400> 678
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tggtgttctg caaaacttgg acaggggcaa agttgctgaa aaagttttgg tttaacccga 120
agataagtgg aaaagagett gtccatgaac ccaggttete actetgttta cagaagtgtg 180
ttgagtacag ttggtgaagg aagaggtaac aaaaaatgct aaatatttta tccatgaaaa 240
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tgatgtttat ttacagtata actcctgaat gctacttaaa taaaccagga ttcaaactgc 420
aagccagcca ggccgttcat tatttaaaac gttttaatcg gggctcactc gag
<210> 679
<211> 133
<212> DNA
<213> Homo sapiens
<400> 679
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aggccctctc gag
<210> 680
<211> 467
<212> DNA
<213> Homo sapiens
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ataccacttc acaagtcgga ggcttaatta cacatgttct ctgggaaatc gtggaaatga 240
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acaatctgaa acttccagag atacaaagaa atgatggatg ctaccaaact ggatataatc 360
aggaaatttg cetattgaaa attteetetg gtettetgga gtaccatage tacetggagt 420
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<210> 681
<211> 361
<212> DNA
<213> Homo sapiens
<400> 681
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catagagatt atcgtggaga ataaggtcaa ggaacttctt gccaatccag ctaactatcc 180
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ctgccctgct gggatgactg ctactgggtg tgcttgtggc tttgcctgtg gatcttggga 300
gatccagagt ggagatactt gcaactgcct gtgcttactc gttgactgga gcccactcga 360
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g
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<211> 296
<212> DNA
<213> Homo sapiens
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<221> unsure
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tgaatgacag tgaatttgct gaatggtact tgtcaagatt ttatgattat ggaaaggaca 180
gaattecaat gacaaaaca aaaaccaata gaaactteet aaaagaaaaa etecaggaaa 240
tgcagcagtt ctttgggcta gaagcaactg ggcaactgga caactccgaa ctcgag
<210> 683
<211> 536
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (112)
<400> 683
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cccaageact gttcctcccg attggagcgt ctgtctctct cctcgtcatg tncttcttct 120
ttgattcagt tcaagtcgtt ttcacaatat gtacagcagt tcttgcaaca atagcttttg 180
cttttcttct tctcccgatg tgccagtatt taacaaggcc ctgctcacct cagaacaaga 240
tttccttcgg ttgctgtggg cgtttcactg ctgccgagct gctgtcgttc tccctgtctg 300
teatgetegt ceteatergg gtteteactg gecaetgget teteatggat getetggeea 360
tgggtctctg tgttgccatg atcgccttcg tccgcctgcc aagcctcaag gtttcctgcc 420
tgettetete agggettete atetacgatg tettetgggt gttettetea geetacatet 480 -
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<210> 684
<211> 136
<212> DNA
<213> Homo sapiens
<400> 684
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gatgcactat ttattttgtt tagtttttct tactgtcttt tgtctattgc catgttccat 120
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ttccccaccg ctcgag
<210> 685
<211> 660
<212> DNA
<213> Homo sapiens
<400> 685
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ccagcettat acaggatget gtgttetttg eteetttgtg aatgtetgtt getggtaget 180
ggttatgctc atgatgatga ctggattgac cccacagaca tgcttaacta tgatgctgct 240
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cetgaettgt catgtgetga tgaaatatea gaatgttate acaaacttga ttetttaaet 360
tataagattg atgagtgtga aaagaaaaag agggaagact atgaaagtca aagcaatcct 420
gtttttagga gatacttaaa taagatttta attgaagetg gaaagettgg actteetgat 480
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gaaaacaaag gegatatgea ttatgatget gagattatee ttaaaagaga aactttgtta 540
gaaatacaga agttteteaa tggagaagae tggaaaccag gtgeettgga tgatgeacta 600
agtgatattt taattaattt taagtttcat gattttgaaa catggaagtg ccgactcgag 660
<210> 686
<211> 381
<212> DNA
<213> Homo sapiens
<400> 686
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atctcatttt ctaccatttt cctcctcttt ttctgaaata catcaacaca gagcactttt 180
ceteteettt aatgeacaaa gatggeagga ettttgaatg ttaeatttat ttatettett 240
ctagagtgec tttccttata cacccatgtg acttgttcct cccttccttc tagtctttgt 300
ttatatata attattatca cagagggcta ggaaagaaaa cacccactgc tgcgccccac 360
actcatccac ctaccctcga g
<210> 687
<211> 202
<212> DNA
<213> Homo sapiens
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cttctgcata taaagtggga gcgtttacta tcttcccagt gcaaatcact tagacacaaa 180
ggatgatata gaaagactcg ag
<210> 688
<211> 518
<212> DNA
<213> Homo sapiens
<400> 688
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agactcaggc acactgaagg tcatttccat gggacacact tgattgctta gaaaaacaaa 120
tttgaaaaat actttcttca gaaggaaaga tattgtttct ccagggtaaa atatttctga 180
gggcttgact ctttccaatg acgectttat gtaagetgtt ggagcagggc tcttaattga 240
taagcagctg tgttaataat tcacaatgaa tagcatattt aaaacgtcaa cccagtgttg 300
attettatgg cagtatetga ggcgagagag accaaagcaa caatgacaat gaatetttag 360
attotggaaa ctcaggagaa gccacactat ctctagagtc accaccttcc ttttttaaag 420
aaagagggaa ggttcccctc tccaaaggaa agtttgcttc ccaggtaacc gtgatctttg 480
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<210> 689
<211> 293
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (75)
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agagtgggta taaattttta aaaattaggc ctaaaaatag agtgtattct ttgtaattag 180
aaattatacc tggattccat ttatctaaca tgctgctgaa gtattttgca agtatagtta 240
cggtattaac agtgtgggct ggtgtaccat tattggtaag ggacaaactc gag
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<211> 500
<212> DNA
<213> Homo sapiens
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aaaaaggagg gaggaggaaa gcaagctaag ggtactgtta gtgctcctgg cactccgtcg 180
tggggccage gttgccttga gaccctccac cctccctcag cctcaggaga attaggttcc 240
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aaccetgggg cggccccagg gttgggggag ggaaggttgg ctggctagag ggcattgtgc 360
caggagcagg atggggggcc aagctgggca gtgtccaggg tcagggcgag ggtggaagac 420
cctcggggtc aagcacagca gagatcgctg gggcagttca ctaggggtga ctgaaggtgg 480
gaaaggaggg gtggctcgag
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<211> 568
<212> DNA
<213> Homo sapiens
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ggataagtgt atggatggga accagccett cccggtgtta gaacccaagg acagccettt 180
cttggcggag cacaaatatc ccactttacc tgggaagett tcaggagcca cgcccaatgg 240
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gaggetgaga gacacagaaa gtggetggga tgacactget gtggteaatg acctetcate 360
cacatcateg ggcactgaat caggteetea gteteetetg acaccagatg gtaaacggaa 420
teceaaagge attaagaagt tetggggaaa aateegaaga aeteagteag gaaattteta 480
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aagactetet agyaccaggg acctegag
<210> 692
<211> 307
<212> DNA
<213> Homo sapiens
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ctgtggcata gtcacccagt tecettttat gtctecattg ctactcactg ggctatacat 180
taccagettg ateteceate caccaacace tetggacact tetateagee atettteage 240
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tctcgag
<210> 693
<211> 359
<212> DNA
<213> Homo sapiens
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cccgtgtctg cccgcatgca ccctgctaac tggctgcttg ttttccggtg caggtgcttg 180
aggaatccaa agccctcgtg cgctgcaaca tgaagatgga gctggagcag gccaacgaga 240
gggagtgtga ggtgctgaag aaaatctggg gctcggccca ggggatggac tccatgttaa 300
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<210> 694
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<211> 474
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (57)
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caccettggg gaggeeggtg aggteaggaa ggeategtae egetttttet eeteeteeca 300
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<210> 695
<211> 180
<212> DNA
<213> Homo sapiens
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<210> 696
<211> 136
<212> DNA
<213> Homo sapiens
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tgggaattgt ctcgag
<210> 697
<211> 290
<212> DNA
<213> Homo sapiens
<400> 697
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tccacaagtc cttccaatta tatttcccaa gtatatctag aacttatcca cttatatccc 180
cactgetact accttagttt agggetatat tetettgaaa aaaagtgtee ttaetteetg 240
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<210> 698
<211> 152
<212> DNA
<213> Homo sapiens
<400> 698
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ctactgtaag gaaatccatg aaactgttaa caactgttgc cttttggatg ttgccagtag 120
cccttgggca gaacatgtct tttcgtcacc at
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<211> 619
<212> DNA
<213> Homo sapiens
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taccagtttt cttcaagaac taaatgatat gtcctttttt ttttttcaa agaggataag 240
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ggcaaaatgc agctgtttat caatctcaaa agctttggga cagtgtcata gttgaaagat 480
gagacttaag aaaacagttt cttaaacttc ttaaaactta agaaacattg tttcataaaa 540
caatattgag tgggcattct tctgcacagt gtgatgctcc aaccctggcc ctagtctcag 600
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tagaccatgc tgcctcgag
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<211> 287
<212> DNA
<213> Homo sapiens
<400> 700
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aacctgctgc ccagacgcca cctgcatcta tagaagtaga tgaaaatata gaattgataa 180
gtggtcaaaa tgagagaatg ggaccactga atatatcaac tccagttgaa ccagttgctg 240
                                                                   287
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<210> 701
<211> 106
<212> DNA
<213> Homo sapiens
<400> 701
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taacaattaa aatcagacaa tgctgtttct gcaccgcttt ctcgag
                                                                   106
<210> 702
<211> 191
<212> DNA
<213> Homo sapiens
<400> 702
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gcacagctat cattttttt tcaaatattt tcaatctaca gatgcagaac cacagatata 120
gagggccaac tatatetgce tattttataa atacaaagca ggcaacacce acaaagacat 180
                                                                   191
atttactcga g
<210> 703
 <211> 534
 <212> DNA
 <213> Homo sapiens
 <400> 703
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 totcactttc tootagtacc toatagtcat toatttttca cocccaacag acaagtggag 120
 actgatatta ttccctttta caatgtaaca aaatcaaagc ttagaaaacc agggggtttg 180
 gaaaataagg aatttgtgta ggattaaaat agaactttga gctcctggac tctgaatctt 240
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attetgtett aggtatteca tgaatecatt cacatettea tttaagtaet etttttett 180
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<213> Homo sapiens
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taattttggt attgcttctt caagtcaaaa cagcgtgttg cttccaggat tttggtgaac 180
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<212> DNA
<213> Homo sapiens
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ccatggctta gagateteat ttggggatae aegtttgttg tgtggccate atgtgtggct 180
gcatggagtg accgaagtga atcatctgcc tgcaagcgtt tacactcagg tgagcacaat 240
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tgctctgcat ataacaaagc tgcttcaagg atgagacett tttctaaaaag catgtaatgt 180
gagaageegg cetgeettat tttetttttt etttttaat gattaaaaat agtttgtgge 240
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<212> DNA
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<212> DNA
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<212> DNA
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<212> DNA
<213> Homo sapiens
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The Letter Light of the A Section 1994 in the Adaptive Section 1994 in the Adaptive

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<211> 395
<212> DNA
<213> Mus musculus
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cgtagettae aaagettgga ggeaagtetg catgetatgg agtecaccag agagteactg 180
aaageggage taggaaegga tttgetttet caacteagte tggaagatea gaaaagaete 240
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gcaggcatcc caggacatcc tggccacaat ggcacaccag gccgtgatgg cagagatggc 240
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ggagatgttg gaatgacagg agctgaaggg ccacggggct tccccggaac ccctggcagg 360
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<212> DNA
<213> Mus musculus
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<213> Mus musculus
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<213> Mus musculus
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The Late Carlot of the Control

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<213> Mus musculus
<400> 763
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gagggagagc cggaggtgac agatcagete gagtggcaaa gcaaccaacc etgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccaggtccag 240
gaagagetge agageteeca agteacacaa gaactgaegg cactgatgga ggacactatg 300
acggaagtaa aggcttacaa aaaggagctg gaggaacagc tgggtccagt ggcggaggag 360
acacgggcca ggctgggcaa agtcgag
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<210> 764
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<212> DNA
<213> Mus musculus
<400> 764
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taatgaaaaa cctcactcag agcgaacagt tgaaagcctg tcatggagcc ggatcctccc 120
ccgtgacctt gagctcagga gagggccaag aagtagatat cctgcagatg ctcaccaagg 180
ccaaggatga gtacaccaag tgtaagacct gttccgagcc aaaacagatg accaattcct 240
ctgccatctg tgacaaccct aaacttatca aacctgtccc cgtgagaccc agcagcagcc 300
agaggetgea aggaceegeg eecageaaga eeteggaeee tgageeteag eaettatett 360
taacagcact atttgggaaa caagacaaag ctccctgtca ggaaactgta aagccctccc 420
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<210> 765
<211> 487
<212> DNA
<213> Mus musculus
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<400> 765
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tgaaattgac aagttggcca ctgaatatat gagtagegec cgcageetga geteegagga 180
gaagetggee etteteagae agateeagga ggeetatgge aagtgeaagg aatttggtga 240
cgacaaggtg cagctggcca tgcagaccta tgagatggta gacaaacaca ttcggcggct 300
ggacacagac ctggcccgtt ttgaggctga tctgaaggag aaacagatcg agtccagtga 360
ctatgacage tettetagea aaggeaaaaa gageeggaee caaaaggaga aaaaagetge 420
cagagecegt tecaaaggga aaaacteaga tgaagaagee eecaaggetg eecagaagag 480
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<210> 766
<211> 382
<212> DNA
<213> Mus musculus
<400> 766
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ggtgacagat cagctcgagt ggcaaagcaa ccaaccctgg gagcaggccc tgaaccgctt 180
ctgggattac ctgcgctggg tgcagacgct gtctgaccag gtccaggaag agctgcagag 240
ctcccaagtc acacaagaac tgacggcact gatggaggac actatgacgg aagtaaaggc 300
ttacaaaaag gagctggagg aacagctggg tccagtggcg gaggagacac gggccaggct 360
gggcaaagag gtgcaagtcg ag
<210> 767
<211> 508
<212> DNA
<213> Mus musculus
<400> 767
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caactcaacc acaatcatgg ctcagatgat gactctgagc ctccttagcc tggtcctggc 120
tetetgeate centggacce aaggeagtga tggaggggt caggactget geettaagta 180
cagccagaag aaaattccct acagtattgt ccgaggctat aggaagcaag aaccaagttt 240
aggetgteee atceeggeaa teetgttete acceeggaag cactetaage etgagetatg 300
tgcaaaccet gaggaagget gggtgcagaa cetgatgege egeetggace ageeteeage 360
cccagggaaa caaagccccg gctgcaggaa gaaccgggga actctaacta agtctggaaa 420
gaaaggaaag ggcaaggtcg aggttctccc tatagtgagt cgtattaatt tcagaggagt 480
atttagaaga gaagctgaag ctgtcgag
                                                                  508
<210> 768
<211> 297
<212> DNA
<213> Mus musculus
<400> 768
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gcgaagatga aggctctgtg ggccgtgctg ttggtcacat tgctgacagg atgcctagcc 120
gagggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccaggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgaagga ggtcgag
<210> 769
<211> 310
<212> DNA
<213> Mus musculus
<220>
<221> unsure
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<222> (65)
<220>
<221> unsure
<222> (82)
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<221> unsure
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<221> unsure
<222> (155)
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<222> (181)
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<221> unsure
<222> (210)
<220>
<221> unsure
<222> (226)
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<221> unsure
<222> (298)
<220>
<221> unsure
<222> (304)
<220>
<221> unsure
<222> (306)
<400> 769
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tataaaggag gtgaatgtga gcccatgtcc caccnatccc tgtcagctgc acaaaggcca 180
ntectacagt gteaacatea cetttacean eggeacteag teccanaaaa geaeggeett 240
ggtccaccgg catcctggaa aggatneggg teceetteee tatteetgaa acctgaengt 300
tgtnanaatg
<210> 770
<211> 512
<212> DNA
<213> Homo sapiens
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ttaatttaga ttaaaacact tactetttt aataaagtta taaaattaat tattaaaatt 120
gcctattgaa gattaaaggc agtggaacgt ttattitcct tacaaaacaa ttttgtcttc 180
aataagtgtg attgtgttaa tcaattatgc tattaaaaat acaactgcgc ctggcctatg 240
```

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gcatctgtct tctaagggac ctccctgctt cagcetttac agagtatett tctagecteg 300
tetetggete tgttcacgge cetetacaga geatgeetet geetttgtte tttgaggage 360
gtgtagcctc cttcctcccc acctcaaaca tctgcgcagt tcccatttac ctctcagcct 420
gggccagtgc acagcatcaa caagctttct ctgagaaggc agaaccagct atttcttggt 480
ctgtgttctc atcatactct acacaactcg ag
<210> 771
<211> 624
<212> DNA
<213> Homo sapiens
<400> 771
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agtoctoctg totcagooto cogagtagat aagactacag gcacaggttg gtgttgacct 120
cctagcctca agcagcctcc caaagtgctg agattacagg tgtgagccac tatacccagc 180
ccagtgttat atttttgtat aatcctatga agtatcaagg cagttattat ccctgtttta 240
ctgctaagaa acttgaagtt tacagaggta aattatttgc ctaagcctaa actctgatct 300
cgaatctgaa teccaagtee aatattettt teacegtatt acaatatttt taccatcaac 360
cctccattct gtctgcacat catacaaatg agtatctcta cagagctttg agttgctttt 420
aaacaaaaga gatttttgta cccaatgttt agagtagtga ttctcggctc catttttaca 480
agatttcaag atttaatttg tcaaaaaagt tctgaaattt tcaaagcaaa agcaatttta 540
atttaattgc tctaaaaaat aagcagattt atcatttagc aattctttaa gggagagtgt 600
atcataaaac tgaaatagct cgag
<210> 772
<211> 418
<212> DNA
<213> Homo sapiens
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cagcacttca gragcattrg cattectgyt taaagaatca ccaatattta aaataaaaac 120
tttcctgaaa ttgggactgt catgttatcc agaagggctg gtacatccgc ccaccatgtc 180
cccctgctgg gtcaggagcc aacacaggac cctgcgtgtg agcgtgcctg acatctcacg 240
cacggccact ccagagccgg tecetgteet tggaaagetg tgaageettg egttgagtte 300
cttctcqata ctqacqqctc cqtqctqaca ttctqaqctc tqqaqtcaca ccaqcqcagg 360
ggcgtggagg aactgaggtt tggaaggaat gccaggtctc gcacagcttg gcctcgag
<210> 773
<211> 197
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (40)
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tggtgaatgt ggcactaaat cttagcatta atatggataa tacacaaaga caatatgaag 120
cagaacggaa taaaatgatt ggaaaacgag ccaatgagag gctagaactc ctgctacaaa 180
                                                                   197
agcggaaaaa gctcgag
<210> 774
<211> 626
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
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<222> (46)
<220>
<221> unsure
<222> (66)
<220>
<221> unsure
<222> (68)
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<221> unsure
<222> (93)
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ttggtncngc ctgtcgccaa tgtgcctgct gtncagcaga cactaattca tagtcagcct 120
caaccagett tgetteecaa ecageeccat acteattgte etgaagtaga ttetgataca 180
caacccaaag ctcctggaat tgatgacata aagactctag aagaaaagct gcggtctctg 240
tteagtgaac acageteate tggageteag catgeetetg teteactgga gaceteacta 300
gtcatagaga gcactgtcac accaggcatc ccaactactg ctgttgcacc aagcaaactc 360
ctgacttcta ccacaagtac ttgcttacca ccaaccaatt taccactagg aacagttgct 420
ttgccagtta caccagtggt cacacctggg caagtttcta ccccagtcag cactactaca 480
teaggagtga aacetggaae tgeteectee aageeaeete taaetaagge teeggtgetg 540
ccagtgggta ctgaacttcc agcaggtact ctacccagcg agcagctgcc accttttcca 600
ggaccttctc taacccaagt ctcgag
                                                                  626
<210> 775
<211> 233
<212> DNA
<213> Homo sapiens
<400> 775
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caaattetta etttagtete tageeteaga gtttattagt tettagtaat gttaetatga 120
aggcaaatag gagacaaatt attattctgg tttttattgt tactgccact gcaattccta 180
tgattattgc tataattccc tatttaatag gtaaacaagt tacaacactc gag
<210> 776
<211> 408
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (71)
<220>
<221> unsure
<222> (97)
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gttttccata ntggctatac tactttactg atctttntct ttttctctaa tttaaacaac 120
tgtcacaaag tcagtttgac ttattgaact tgtataactt ctgtgcctca ataaaactga 180
atgttacagt aaggaattag gtgaaattta cttttttttt ttttttttc aggaagactt 240
acttagttag gtagetagta gaatagtaac etgaacteaa gaaatgtaat tteateetga 300
taaaactgct gagtagggct atcttcctaa ttttcattaa atatttctta cttggaaaca 360
ttgaatatta aatgagacaa aaactgtaag actaacagca aactcgag
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<210> 777
<211> 156
<212> DNA
<213> Homo sapiens
<400> 777
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gtacaaatag tacaattegt atttgettte etetteett tetteagaca aacaccaaat 120
aaaatgcagg tgaaagagat gaaccactcc ctcgag
<210> 778
<211> 535
<212> DNA
<213> Homo sapiens
<400> 778
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agaatcactc cggtagagac acagagaaca gacttettgt actcccacga tgaatgagec 120
ggaggtcact tactcaactg tgagacttca taagtcttca gggttgcaga aattagtaag 180
gcatgaggag actcaagggc ccagagaagc tggcaacaga aagtgttcag tatcctggca 240
actcattgtg aaagctcttg gaatcctctg tttccttctt ctggtaatag ttgcagtgtt 300
gacgataaag atttttcagt atagtcaaca caaacaagaa atcaatgaaa ctctcaacca 360
ctaccataac tgcagcaaca tgcaaagtga tttcaactta aaggaagaaa tgttgacaaa 420
taagtetata gattgtagge caageaatga aettetggat tacateaaaa gagaacagga 480
cagatggaac agtgaaacca agacggtttt agattcctca cgggacaatc tcgag
<210> 779
<211> 123
<212> DNA
<213> Homo sapiens
<400> 779
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agactcaaag gactgactct aaagcccaag ctcctgacca tgagaccata cttctttctc 120
gag
                                                                  123
<210> 780
<211> 436
<212> DNA
<213> Homo sapiens
<400> 780
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caaaagtgag aagaagaact caagtgggga aaaaaaagta gacttttcaa ggaaagagga 120
aaggaagaaa aggaattgca tgtaaataat agagatgagg atgaatcaga gtgacttcct 180
aaatatatgc tgcataggaa gaaaaatgtg gccaagagga atggtgggac ctgaaagaga 240
tgtggaggag ggtgagagga agggactgtg tggaaggcag agctccgaaa cacagccgga 300
aaacagetge ttgtatteca getacageat ggaaatgeac gegggeetet eegetgetee 360
tcaccagccc gcaccctaca cagaggette tgttcattca ttagttcatt cactcatgga 420
tcctcttccc ctcgag
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<210> 781
<211> 651
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (49)
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<400> 781
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getcactgca acctecacet cecaggttea agegattete etgeetcage etceettgta 180
gctgggatta caggtgcctg ccaccacgcc tggctaattt ttgtattttt agtagagatg 240
gggttteacc atgttggeca ggetggtete gaacteetgg cettgtgate caecegeete 300
ccaaagtgct gggagtacag gcgtgagtca ccatgcccgg ccttcttctt ttatttttt 360
ttaaagtaga ggttgcaaac tgacagcctt tggaaagaat acagcctaca aatacttttg 420
tttggcttgc acagtatttg tttattgttt ttacacacga agaagttgcg agcatttaaa 480
acactggcac tttaaataaa gttttaaatt tttggcttct tttggaaaat ggaaaggttg 540
etectetetg ggtcageatt cetettggtg geagttaget geagetgggt tgaagetget 600
cctttagcca ggcttgtggg ctccagtttg ccacagcctc caccactcga g
<210> 782
<211> 384
<212> DNA
<213> Homo sapiens
<400> 782
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tttttagaag ttacatgcta actcaccctg tattatggtc agaaatctga actgtgggag 120
atactgggtt ttgaccccac gtaattttcc acttaacctt tattcacaga gtactgaacc 180
taggetttte teateaagaa teteteaagg gtttaaaatg acagtgtata gtttttgtaa 240
aggcaggtta aatcttgatt ttaatgtagg cttttgacat gtattatttt cttcattgtt 300
tttaactett gaactttatg agttaggatt eeetgacaaa tataegetaa taaatgtett 360
agtaccgata tgaacaatct cgag
<210> 783
<211> 165
<212> DNA
<213> Homo sapiens
<400> 783
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atotgacaco catoagatot gotggotgao egaattatac attotgtgga tagagagtto 120
tcaaagtaac attgatccat gatattttgt tgctggatgc tcgag
                                                                  165
<210> 784
<211> 457
<212> DNA
<213> Homo sapiens
<400> 784
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ccacctgcct gtctacacct tcctccttcc atccatccac tcacctgtct acaccttcct 120
cettecatee geetgtetae acttteetee ttecatecae ceacceatet atacetteet 180
cettetgtee acctgeecat etacgeette etecatecat ceaccegeet gtetacgeet 240
tteteettee atecaeceae ceatetatae ttteeteett ceatecaeet geetgtetae 300
atettectee trecatecae etgeetgtet acacetteet cetteegtee atecacacat 360
geatetgtte ttecaateat cettetgget gttgttatea cettggeeat etacggeace 420
cggaagttca agaagaaagc ataacaggca actcgag
<210> 785
<211> 437
<212> DNA
<213> Homo sapiens
gaatteggee aaagaggeet acgagggega eggaggaact ttegegagea aaagateegt 60
ggccgagatc caggagagag cagcggtaga atgaggccgg cgtgattctg aactgtaaac 120
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ccagaagagg cgtggctgtg gcggagggag gagtcgtgag gggtagtact aacctcggga 180
ggcgcgattc gggatcctaa tcggatattt cattttggtt tatctcttag ttttgtcaaa 240
aaattttatc tgagtttata ttaaattaac tcattatcag aagattatta aataaagata 300
tagaaaaata catcagaaat ttcctgacgg gagttaaaaa ttagcatcct ccatttctct 360
ttacagagtt actgcattta aaattatttg tttgttcagt tatttacctg ctcatgttgt 420
tegetgttgt actegag
<210> 786
<211> 398
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (16)
<220>
<221> unsure
<222> (82)
<400> 786
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aatcagggag gggacaacag gtagaatagg cctcctgagt cccttacctg ttcttttcc 180
ttttttctag tctggttttt cttctcctta tcattttctt gttcttttc attttcctat 240
getgetgett etatttette tatgtgttgt tgttteteet teteeteet ttgtattatt 300
tateceaage aatageetta acaaacaace atecaaaact gagttaaaaa tagaetaett 360
gtcagtgtgt tgtactcccc cctcctccct gccgcccg
<210> 787
<211> 200
<212> DNA
<213> Homo sapiens
<400> 787
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gtggagctgg agtagagaga ggagactggt taggagcatt gccacagtcc aggcatgaga 180
cgatggtgtc tggcctcgag
<210> 788
<211> 199
<212> DNA
<213> Homo sapiens
<400> 788
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tagtactttg gctaataaat tggatcccat tttgtttgct aaataaaggt tcagtgtgga 120
cttactttcc tctttacttt gaaaatctga atatagttcc caaatgaatt taaagtacat 180
tcaagcaacc atactcgag
                                                                   199
<210> 789
<211> 258
<212> DNA
<213> Homo sapiens
<400> 789
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tgttgtgtga taaaaagact tctaaattgg aagtcaggaa ggatggacct cagccatgag 120
ctgccctggc aggctgtgct tatcacaaca gttggtattg cccttactgc aacaaatggg 180
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gaagtagatt tgactgcaca ttttaacaaa aatcttgaga ataccaggaa aacaactagc 240
atgaagggaa gtctcgag
<210> 790
<211> 223
<212> DNA
<213> Homo sapiens
<400> 790
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gcatttctcc tctactgggg tgaacactgt ctcgtcactg ggtataacag cattactact 120
attgctgcta cagccaaagc tgtcatcaca tttggaacta ctgttcagat caagtgtcat 180
gctatttttt gagggatctc cctgtttact tgtattactc gag
<210> 791
<211> 281
<212> DNA
<213> Homo sapiens
<400> 791
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caaaggactg ctagtgttcc atctgaagac ggaaagacac attccctgca acattttctg 120
cacagtgage tgccccaaac aagetgeeet gttgcaaate acettteagt acageatatt 180
ttttcccaaa cgctgcatat ttattaagca caccattttt cctgcgtatg gaattctgtt 240
ctctctcaat gttaatcttt aatgtacaag ccatactcga g
<210> 792
<211> 134
<212> DNA
<213> Homo sapiens
<400> 792
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tcacagecet egag
<210> 793
<211> 165
<212> DNA
<213> Homo sapiens
<400> 793
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tttgtagcat tttctagttc ccccgcaccg tcagtggtat tatctccctc gtgcagccct 120
ggcatatctg ccccacatct gagaggcatg cgcacgcccc tcgag
<210> 794
<211> 305
<212> DNA
<213> Homo sapiens
<400> 794
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cccaaatgtg ccttctactt ataaatagaa caagaagtaa atatatatgc ttagctatct 120
taggagttag atcttggatg ttttaaagtc cagctgggtc agacaacatg ttacttgctc 180
cctatgtgat atggtttgga tatttgtcct ctctaaattt catcttgaaa tctgaccccc 240
cagtgttgga ggtgggatct agtgggaggt ggtgggtgat gggggcagct cccactacac 300
                                                                   305
tcgag
<210> 795
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<211> 182
<212> DNA
<213> Homo sapiens
<400> 795
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gcatagaaac tatgaaaaac ataattttga ttacattatt tatatatttt tgtaatatga 120
gtagttccaa gatcagagtt atggccacac attgctcgag caggtctaga attcaatcga 180
<210> 796
<211> 436
<212> DNA
<213> Homo sapiens
<400> 796
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gaccaaccca taataaatgt tatctattgt gctatttgcc atgctctgta ccagccctga 180
gecagaccea ttecataaac tecatteate eccatecaac tttetteact ttactgagee 240
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9905 - 1 - 1 - 1

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ggatgtcctt tatttctttc tcctgtctga ttgctctagc taggactgcc agttctgtgt 180
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tcagttttcc cccatgtctc gag
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<212> DNA
<213> Homo sapiens
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tgataatggg tcctgcgtgg tccttgataa catctacacc tccgacatct tggaaatcag 180
cactatggct aacgtetetg gtggggatgt aacctataca gtgacggtee eegtgaacga 240
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<211> 296
<212> DNA
<213> Homo sapiens
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caaaagaagt ccagagcagt ctgaaggcac agcaagggct tgaaattgaa atgtttcaca 180
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<211> 152
<212> DNA
<213> Homo sapiens
<400> 802
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<221> unsure
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aactatatca acaaaccgaa tacaacatgg caggctggac gcaacttcta cnatgttgac 180
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gttgcgttcg gtgaggacat agatctacct gaaacctttg atgcacggga acaatggtcc 300
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<212> DNA
<213> Homo sapiens
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tecacageca cegaggaget ggtattetet ggagateggt etteageact gattegagea 180
ttaagtgace ctgatgaact cgag
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<211> 284
<212> DNA
<213> Homo sapiens
<400> 805
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tgattcagat acaaacagga toottgggac aagccactac ggccgcttct ggtactaaca 180
aaaacagcac ctccaccaaa aaaaccccct taaagagtgg ggcctcatcc atcatcgatg 240
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<210> 806
<211> 290
<212> DNA
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<222> (107)
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acagtatoty otgocaggae tacatecyte accetetyce atcacyttta gtgaaggagt 180
tettetggae etcaaaatee tgeegeaage etggegttgt tttgataace gteaagaace 240
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<212> DNA
<213> Homo sapiens
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gtggetgetg etcetategt tettaetggg etteagegeg ggatetgeea tegaetggeg 120
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<213> Homo sapiens
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gggetgagec aggetetgtg ategetgegt atacatetgt gattacetgg tgteagggtt 180
cctgggaggc ccagtattat catctgtata aagagaaaag tgtaaatcct tgggacactc 240
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<210> 809
<211> 584
<212> DNA
<213> Homo sapiens
<400> 809
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eccacaaget tateettttt gggggteese agteactges tgtagttgtg caccagtgea 240
tgtgttagag ggggcattca tgggatcetg tgggcactga egataceegt agccactgec 300
caagagtgag ettetteece gecagageet caegggeece taaatteect gtegaceatg 360
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gtattttgaa tagttttaga ettacagaaa agttgtaaga atagtataaa gaattteeta 540
catecttcac ccaaattttc caaatgttaa cattttggct cgag
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<211> 600
<212> DNA
<213> Homo sapiens
<400> 810
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agcactgagg aagtgaaaat agaagttttg caccgtccag aaaactgctc caaaacaagc 180
aggaaaggag acttgctaaa tgcccattac gatggctact tggctaaaga cggctccaaa 240
ttctactgca gccggacaca agatgaaggc caccccaaat ggtttgttct tggtgtcgga 300
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<212> DNA
<213> Homo sapiens
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<211> 479
<212> DNA
<213> Homo sapiens
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gacgcgcatg aaacatatat ctagtttatt tttctcacct atcattcacc tgaatttctt 180
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ataaatttta taagaggttt gtttcaaggg gattctttgt ttatagagca tcaacaatgt 300
tcaacacaca tetttcagtc acceptattgt ttagtgatat gttttttgct attecaaatg 360
ggattttatt cctattactt ttcatcatga aattcacatc atatggattg gggtccccaa 420
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<211> 560
<212> DNA
<213> Homo sapiens
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aaagccagtt gaaagttatg gaccagcaga gctttaacaa atttatacaa gctttttcta 240
gggacaccgg tgctatgcaa tttctggaaa attatgaaaa agaagacata acagtagcag 300
aactggaagg aaactcaaat tetttgtgga ecateagece acceagtaag cagaaaatga 360
tacacqaact cetggacece aatagtaget tetetgttgt tttttcatgg agtattcaga 420
gaaacttaag tetgggtgea aaateggaaa tageaacaga taagetttet ttteetetta 480
aaaatattac tcgaaagaat atcgctaaaa tgatagcagg caacagcaca gaaagttcaa 540
aaacaccagt gaccctcgag
<210> 814
<211> 579
<212> DNA
<213> Homo sapiens
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gcctggccta gaaggtgctc agtacgtggc ageggtgatg gtcatcgtct tcaggtgcga 180
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ttgatacett taagtattga getattettt tgttaggaca gaacacgtta ttccattaga 360
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<211> 618
<212> DNA
<213> Homo sapiens
<400> 815
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1 1 17

1.34

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tcgtgtttgt aacggggaac gccaagaagc tggaggaggt cgttcagatt ctaggagata 120
agtttccatg cactttggtg gcacagaaaa ttgacctgcc ggagtaccag ggggagccgg 180
atgagatttc catacagaaa tgtcaggagg cagttcgcca ggtacagggg cccgtgctgg 240
ttgaggacac ttgtctgtgc ttcaatgccc ttggagggct ccccggcccc tacataaagt 300
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gcctgttcag gggccggacc tcgggccgga tcgtggcacc cagaggctgc caggactttg 480
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<211> 164
<212> DNA .
<213> Homo sapiens
<400> 816
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gaagttgete tgattaaatt tttaagcatt aaaatatget geeceatttt etaataatge 120
agtatataat acaactccca ttactaacta atgctcaact cgag
<210> 817
<211> 719
<212> DNA
<213> Homo sapiens
<400> 817
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tacttgggag gtaactggaa taaaggttct aaaatcaaaa ccctctgaag ggtgaaaact 120
gggagcctcc tgttcccata gtaaccacag cactcagggc actgtctccc agcgctggag 180
tactgtetta tgaccagaga tectaageaa cetetgetea tetgagttgt ceaccatatt 240
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tttccaactc tgggaatgtg tagaattcat tatggaaata atgcaataat tcaaatccat 360
aatattgata ctttcatgtt aagtttagga ctaatcttgt gtatgctcct taagtgattt 420
gaatetttaa aaagettatg atteeaattt gaaatgtgaa attgatttta egtttgtgat 480
ttgaagttga aaggtataag aatatttaac ttagctcatg aaaagtatta gactagattt 540
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<210> 818
<211> 100
<212> DNA
<213> Homo sapiens
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teteatacce agaatattgg geagatgetg eggactegag
<210> 819
<211> 615
<212> DNA
<213> Homo sapiens
<220>
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<222> (58)
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213

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<222> (74)
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<222> (118)
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agaagtcatt tcccccctg aatcttagtg taaaggcagc tgcagtctgc tgacagcttg 180
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gcattcgttt cgtcatctgg aagcagagat ggaagaagct gggggggaaat gagagacatc 300
actyttgett tegtggaggg aagetttgta geatgttate agacageagt geatattgaa 360
gaaaatatct gttaggaatg catgtcacca gatgtatttt gctttcaaga atggtagaca 420
catcaaacaa gaatcagata aaagcctgag aaaaagatgt tcagaagaat actggagtta 480
ttetttatge tteaetgeee tttacetete ttggtacett ccagagaaac aagtatagat 540
gtatttttag cttgccgttt ccagcatcaa tatgacaaca tgattttgtc tttatatcag 600
taagcagcac tcgag
<210> 820
<211> 680
<212> DNA
<213> Homo sapiens
<400> 820
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ctctctgtct tccaagccct gggaatgcac aggcacagtg cacgaatggc tttgacctgg 120
ategecagte aggacagtgt ttagatattg atgaatgeeg aaccateece gaggeetgee 180
gaggagacat gatgtgtgtt aaccaaaatg gcgggtattt atgcattccc cggacaaacc 240
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getttggata ccagatggat gaaagcaacc aatgtgtgga tgtggacgag tgtgcaacag 420
atteccacca gtgcaacccc acccagatet gcatcaatac tgaaggeggg tacacctget 480
cctgcaccga cggatattgg cttctggaag gccagtgett agacattgat gaatgtegct 540
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ctgggtttac cctcaatgag gatggaaggt cttgccaaga tgtgaacgag tgtgccaccg 660
agaacccctg tgtgctcgag
<210> 821
<211> 414
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (291)
<400> 821
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gtgtatcttc gaagaagtaa tatggaattt ctctttaata aaactggatg ggcttttgca 120
getttgtgtt ttgtgettge tatgacatet ggtcaaatgt ggaaccatat aagaggacca 180
ccatatgccc ataagaatcc ccacacggga catgtgaatt atatccatgg aagcagtcaa 240
gcccagtttg tagctgaaac acacattgtt cttctgttta atggtggagt naccttagga 300
atggtgcttt tatgtgaagc tgctacctct gacatggata ttggaaagcg aaagataatg 360
tgtgtggctg gtattggact tgttgtatta ttcttcagtt ggatagctct cgag
<210> 822
<211> 205
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214

<212> DNA

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<213> Homo sapiens
<400> 822
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gctagctctg tggctgtgtt tcaaacagaa atatttgatt ttagtccaga aaaaaagagc 120
agtttggtta tttgaaatgc caagtttctt ggtttatttt tgggttttgt tattgttttt 180
tggtaaagaa taccgttgtc tcgag
<210> 823
<211> 355
<212> DNA
<213> Homo sapiens
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ttcaaagttg tatttttct tactgatata gcaaggtatc tgagcacatc aagcttgaga 120
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acgaataact gctgcactgt ttggtataaa ttgtcacaat ttcagaagag attcttagat 240
gttagtgaga aaaacatact taactttcct ttgcatttgt ttacattata aagaagtatc 300
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<210> 824
<211> 328
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (32)
<400> 824
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anagtgetgg gattacaege gtgageeace gegeeggee tgtactgtta ttettattge 180
ccttttatac ccactagtgg ttgggaagtt attcattcaa catcttttag tgttattcac 240
tttttaaaaa gttgaagtac agcatacata gagaaaagtg tgtcctccag ctttttattt 300
tattttattt tttttttagg cctctttg
                                                                  328
<210> 825
<211> 101
<212> DNA
<213> Homo sapiens
<400> 825
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tgctgataaa ctcactgcaa ggtctcatac actcactcga g.
<210> 826
<211> 394
<212> DNA
<213> Homo sapiens
<400> 826
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cotgattett teettgttet etttgettat aggtggtgtt eggatggttt accetteage 120
atttgttttg atctctcaga atgacatccc ggttcctcag agtgttgcca gtgctggagg 180
ccacattgca gttgggcagc aagggcttgg tagtgtgaag gacccaagta actgtgggat 240
geetetgace ceteceacet etecagaaca ggetateeta ggtgagagtg gaggtatgea 300
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tcacttttca ttccttttga taggaagttt tcacacatgg aaagcctgga cctgtttggc 180
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<211> 286
<212> DNA
<213> Homo sapiens
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aataagagct gtaaaatctt ceteetgtgt teeaagggat tgttttttac ateeeteett 180
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<210> 829
<211> 484
<212> DNA
<213> Homo sapiens
<400> 829
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cagtttcttc acatgtaaag tggggataat aatagtgeet geetcaggat taetttgagt 180
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<211> 321
<212> DNA
<213> Homo sapiens
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tattactgca catcatgctg ggggagattc tcaggtgagg gtctccctcc aggctcatcg 180
cetegeteet eteaceteet geteateete ttgaggeete eeetetgtte eagaecaggt 240
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<210> 831
<211> 340
<212> DNA
<213> Homo sapiens
<400> 831
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tgagcctcga tacaggccct atgatggtgc tgcgtctgct tacgcccaga actaccgcta 180
tecegageee gageggeeea geteeegage cagecactee teggaacgge caceteecag 240
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ctatgcaagc tattactcca gccagtacga tatcctcgag
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<211> 497
<212> DNA
<213> Homo sapiens
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ggagacagcc gctcattacc ttgcagtatt tttctctgga aatccttgta atcttgaagg 180
aatggacctc aaaattatgg catcgtcaaa gcattgtggt gtctttttta ctgctgcttg 240
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<211> 380
<212> DNA
<213> Homo sapiens
<400> 833
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cgctgtaaac aggtggaaaa ggccaaggtt gaagtcggtg tggccacggc gcttggaatc 180
ctggttgttg ctggatgete ttttgegatt aggagatace aaaaaaage gacageetga 240
agcagecaca aaateetgtg ttagaageag etgtgggggt eeeagtggag atgageetee 300°
cccatgcctc cagcagectg accetegtge ectgteteag gegtteteta gateetttee 360
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<211> 235
<212> DNA
<213> Homo sapiens
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aatttttcct gttgattctg ccattgacac tatatctcca ttgaatcaga agttctcaca 180
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<210> 835
<211> 309
<212> DNA
<213> Homo sapiens
<400> 835
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gctcttggat tttgtcgttt ggtttttgct taatatcaaa tatccagtca gtgtaaactc 180
gtttataatt tggtcctttg atttcaagga gctatgatgc agttcgttgt ggggatgtgt 240
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aacctcgag
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<211> 271
<212> DNA
<213> Homo sapiens
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caeggtetge catgtggtga ttgttgteca ggaetggtte acagacetea gtetetacag 180
gttcctgcag acagcagaga tggtgaagcc ctccacccca tcccccagcc acgagtccag 240
cageteateg ggeteegatg aaggeatega g
<210> 837
<211> 422
<212> DNA
<213> Homo sapiens
<400> 837
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ttctccagtc tgtattattt gccaggtatt tgggaaacaa atttgaatga ggtgtcaacc 120
ccaccettaa agttgtetea geatatetag agggatagaa aaataagtag ataattagea 180
catgacttca taaatcacat gtgtttatat ttatcatgtt atgacagcat tagagaaggg 240
atactaagtt aactttgcct gggttactaa gtattagcta taaaagttct aagatactat 300
tettetetgg agagtttaat cactagggaa gacaggatgt gttatggaaa gaaaacatat 360
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<210> 838
<211> 448
<212> DNA
<213> Homo sapiens
<400> 838
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accacaaaga teettttttg geaagttgtt acgggaattt agaettgtag cagetgaeeg 120
aaggteetgg aagatactge tetttggtgt aataaacttg atatgtactg getteetget 180
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tgatcuttut aguttaatga catguttaat aagutactgg gtaacattga ggaaacctag 300
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cttggcacag ttgggagctc tctttatatt aaaagaaagt gcagaacgct ttttggaaca 420
gcccgagata cacacgggaa gactcgag
<210> 839
<211> 295
<212> DNA
<213> Homo sapiens
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ceteccaate titteetitt teteetittg tietatgete eggggacatt cittaactat 180
tatettaeaa teteteeatt ggatttttgt tgccatattt ttaaetteea aatgetteat 240
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<210> 840
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<212> DNA
<213> Homo sapiens
<400> B40
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agaagtaagt gctttgagaa ttcataagag aaagagaagc tttacatttg aggagctcaa 180
gaaacaattc acattaaata tatcatttga gattgacttt gataaaaaaa gtaattttag 240
tggatgaaac tggtgtggta tgaattcgtc agtgtgtgtg tgtgcgcatg tgtgtgtatg 300
tgtgtgtttt tgaggacaag gaagcaactc gag
<210> 841
<211> 605
<212> DNA
<213> Homo sapiens
<400> 841
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atgaagatet ggeeeteggt gaccaggtae cagtagtaea ggeeactggg tgeeaccagg 180
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gagtcaccca ccaggtggat gctggcaccc atgatgaaga tgatgatgct cacgtacgtg 480
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<212> DNA
<213> Homo sapiens
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crccagaget etgeceaetg tittaettic teceteceae ticaggetaa ageteaetti 180
gctctgccag acctgttctc agcaaggatt cttttgtttt tttaaaccta cgtaatgatt 240
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<210> 843
<211> 362
<212> DNA
<213> Homo sapiens
<400> 843
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<211> 298
<212> DNA
<213> Homo sapiens
<400> 844
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gggcccaggg caggtgaagc cttcggagac cctgtccctc gcctgcactg tctctgctgg 180
taccatcage agtgggaggg atcagtgggg ctgggtccgc cagcccccag ggcagggact 240
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298
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<212> DNA
<213> Homo sapiens
<400> 845
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aataaaaacc ttggagtttt ttggtgaatc ttgaggttta acatacatct gagagtggcg 180
tgggtaagag tcctcagtta ctgccttata ctcctatggg atggttccca cagattgtat 240
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taagtaaaac tgattaaatt tteettatet gtetgtetee atgttttete eettaatetg 360
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<210> 846
<211> 313
<212> DNA
<213> Homo sapiens
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tetgteagtt cecaccacag atgtgtetea geteeeteea eetteteaag ateagtetea 300
ggtaaagctc gag
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<210> 847
<211> 268
<212> DNA
<213> Homo sapiens
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aacaataaag accaatgacc caggagteet ecaagcagee agatacagtg ttgaaaagtt 180
caacaactgc acgaacgaca tgttcttgtt caaggagtcc cgcatcacaa gggccctagt 240
tcagatagtg aaaggccgga acctcgag
<210> 848
<211> 306
<212> DNA
<213> Homo sapiens
<400> 848
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agtgatecte ceaceteage eteteaagtg getgggaeea eagaagtgea eeaceaegeg 300
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<212> DNA
<213> Homo sapiens
<400> 849
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<210> 850
<211> 298
<212> DNA
<213> Homo sapiens
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atcaccttca aaacaaacaa acaaaaaaaa tccttgaact tcagctatgt atatcagaaa 240
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<211> 209
<212> DNA
<213> Homo sapiens
<400> 851
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agctgtattt ctraatcatc tttaatttga aacttaagaa aatgaattta ttctgttata 180
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<210> 852
<211> 358
<212> DNA
<213> Homo sapiens
<400> 852
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<212> DNA
<213> Homo sapiens
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cactetttea gtttatttea tteeteteat tgegeattgt cagaaageat aateeceage 240
aactctctag agacgctcga g
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<212> DNA
<213> Homo sapiens
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<211> 242
<212> DNA
<213> Homo sapiens
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<210> 856
<211> 296
<212> DNA
<213> Homo sapiens
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ggattgtgag gcctccccag ccatgtggaa cagtaagtcc aataaacctc tttcttttgt 240
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<210> 857
<211> 324
<212> DNA
<213> Homo sapiens
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tactcagtgg gatttatata ttccatccac ttgaaacaat aaacagtaat gtatccaaga 300
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<210> 858
<211> 252
<212> DNA
<213> Homo sapiens
<400> 858
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teggagacce tgteceteae etgeggtgtt tatggtgggt etttgacegg gtactactgg 180
gcctggattc gccagccccc agggaagggg ctggagtgga ttggcgaggt cagctttagt 240
ggaggactcg ag
<210> 859
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<211> 294
<212> DNA
<213> Homo sapiens
<400> 859
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tegggeecag gaetegttaa acetteggag ateetggeec teacetgeac tetetetggt 180
ggetecateg eteettatta ttatttttgg gteeggegge eegeegggaa gggaetggaa 240
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<210> 860
<211> 332
<212> DNA
<213> Homo sapiens
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cacattatgt atcetggtat cagcaattce caagateage ecceagacte gteatttatg 240
acacttetge geggeeetea gggatteetg accgattete tggegeeaag tetggeaegt 300
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<210> 861
<211> 291
<212> DNA
<213> Homo sapiens
<400> 861
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gecaccatgt cttgggteet getgeetgta etttggetea ttgttcaaac tcaagcaata 180
gccataaagc aaacacctga attaacgctc catgaaatag tttgtcctaa aaaacttcac 240
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<210> 862
<211> 208
<212> DNA
<213> Homo sapiens
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<210> 863
<211> 271
<212> DNA
<213> Homo sapiens
<400> 863
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aaagetggge ggaaggaggt gtgegtgget tetggggtgg gacceagagg ggaggetetg 120
ggacaggggc tggggttcag tgccagggcc ctgaggaaga aatggggact gatctcaaaa 180
ttccagaatt ccctgtacat ctgttcacgt gcttgtgtcc aggtgtgact tgtaaactgt 240
ctagtgtttg cattaaataa tgacactcga g
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<210> 864

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<211> 235
<212> DNA
<213> Homo sapiens
<400> 864
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ttccatgttt ttgtttttt gtttgtttgt ttgttttaga caggttcttg ctctgtcacc 120
cagtctggac tgcagtggta tgatcatggc tcaccacggc ctcaacctcc tgggctcaag 180
caaccetect getteaccet etgtggtage tgggacegeg gacaegeaac tegag
<210> 865
<211> 153
<212> DNA
<213> Homo sapiens
<400> 865
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atattaaaaa aaactataag ttaaaataac attcagattg tatagcatag gctgatgcat 120
tttaaaacaa tatttacaat attacccctc gag
<210> 866
<211> 282
<212> DNA
<213> Homo sapiens
<400> 866
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attetgtate etgaacetet ettaacacat eccetetget ecagteccat ggtaggeett 120
ggtcactgca getgeeteet aacatgette eeggetteta gteteteece acaccactca 180
gcagcettee caaatggeag ateageacet gaggeeetge tacagteeet gcaggggetg 240
cccgcaggcg acagcccact gtgctttgct ggtttgctcg ag
<210> 867
<211> 243
<212> DNA
<213> Homo sapiens
<400> 867
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ctgcaggcca ctgccctcac tactctggtt catgtcttct gtgtgctttt gttgttccag 180
etttgeettt catgecetag tgattteeet gttaaaatge cacateceet etteccaete 240
gag
                                                                   243
<210> 868
<211> 188
<212> DNA
<213> Homo sapiens
<400> 868
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gcagtggata tttgtgttgt ttccagtcac ttgctgttat ctcagtgctt ataaatgatt 120
gtttctctta cacccaggaa ttccattcct gggttatggg ttatgcttat tatgctcacc 180
aactcgag
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<210> 869
<211> 198
<212> DNA
<213> Homo sapiens
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<400> 869
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ctcttagact catgtatttt tatttttatt ttctctctca ttctctggct ttccttgaaa 180
ectececat acctegag
                                                                  198
<210> 870
<211> 271
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (93)
<220>
<221> unsure
<222> (147)
<400> 870
gctcatgtgc aagaaaatga agcacctggg gttcttcctc ctgctggtgg cggctcccag 60
atgggtcctg tcccagctgc agctgcagga gtngggccca ggactggtga agccttcgga 120
gcccctgtcc ctcacctgca ctgtgtntgg tgggtccatg aggagtagtg gttactactg 180
gggctggatc cgccagaccc cagggagggg cctggaatac attgggagta tctataacaa 240
tggggacacc tactataacc cgtccctcga g
<210> 871
<211> 296
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (166)
<400> 871
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tectectget ggtggegget eccagatggg tectgteeca gttgeagetg caggagtegg 120
gcccacaact agtgaagcct tcggagaccc tgctcgtcac ctgcantgtc tctggtggct 180
ccatcagcag tagtccccac tactggggct ggatccgcca gccaccaggg caggggctgg 240
agtggcttgg gaatgtctat tatggtggca gtagttacaa caatccgtcc ctcgag
<210> 872
<211> 275
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (251)..(252)
<220>
<221> unsure
<222> (257)..(258)
<400> 872
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ctcccagatg ggtcctgtcc caggtgcatc tgcaggagtc gggcccagga ctggtgaacc 120
cttcggagac cctgtccctc acctgcggtg tgtctggtta ctccttcaga agtggttact 180
attggggctg gatccggcag tccccaggga cggggctgga gtggatcgga agtatctatc 240
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ataacggagt nnccttnnac aacccgtccc tcgag
                                                                  275
<210> 873
<211> 110
<212> DNA
<213> Homo sapiens
<400> 873
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ttacacatgt tctgattgta acaaataatc tcactgtatg gggtctcgag
<210> 874
<211> 264
<212> DNA
<213> Homo sapiens
<400> 874
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tttttaaata ttttaattcc catttacaaa gtgatttacc cacaagccca acctgtctgt 180
etteaggtee caggteaagt teatggacet gagatgeteg caagggggat ggtgeetetg 240
gatecagtte aggegtetet egag
<210> 875
<211> 268
<212> DNA
<213> Homo sapiens
<400> 875
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tgaactcace etgteectge ecagattttg cactgttgag attatgaggt actteetaat 180
ggttgctgca gctgcagccc ataaaacagc tctttgtgtg tatgaagaaa atcataataa 240
                                                                  268
gaggggcctc cagagccaaa ctctcgag
<210> 876
<211> 356
<212> DNA
<213> Homo sapiens
<400> 876
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ttacttctat gtccaacagg ttaccaattc aatcttatag tcctttccag gggctgtgct 120
cttggcctgg ggtggtcttt tctctcctta cctggctgac agttacttgt ctctccgcag 180
gggatcatgt tcggaccccc aggccagccc actgctgctc cttggcactt tcacggccct 240
ggegtgteee egteatagee ettateagte cettgtattt acetggteae ectecatete 300
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<210> 877
<211> 228
<212> DNA
<213> Homo sapiens
<400> 877
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ctcatgctta tttcgccatt aagttgggct ggaaccatga ctttccagtt ccgtaatcca 120
aactttggtg gtaacccaaa taatggcgct tttttattaa atagcgctca ggcccaaaac 180
tcttataaag atccgagcta taacgatgac tttggtattg aaacaccg
<210> 878
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226

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<211> 193
<212> DNA
<213> Homo sapiens
<400> 878
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cataatgttt agtatgacta gacagcccca atacttggtg tacagtagat gctcattgag 120
ggtttaccaa atgatcacgt tcttctcata cctgatgcag accataaaag gttcgagtct 180
cccctccctc gag
<210> 879
<211> 263
<212> DNA
<213> Homo sapiens
<400> 879
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ttttctgtga tatgctgaaa ccccttattt tctgtgaact ttgtagaatt tccctttggt 180
ctcaggaggt agcccttgat gctagagagg cttcagaact gagctctacc tttccccaga 240
tccccaggga ggaggccctc gag
<210> 880
<211> 237
<212> DNA
<213> Homo sapiens
<400> 880
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eteccattte tactaaagaa ttagtatett tggtataaaa ataaggagge agaceagttt 120
tacaaatagc tgctggccag gagaataaca gtttctgcca ggtgagcagt taaaaaaaaa 180
gcagactgga aaaataactg tggaatggtg tttcttattt acaaggcatt actcgag
<210> 881
<211> 289
<212> DNA
<213> Homo sapiens
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agtttagatt acattaagat tgttttgttt ttgaatgggg gatagaaaac catttteett 120
ttattttatt tacttatttt tgagacagag tetegetetg teeeccagge tggagtecag 180
tggcatgcct cggctcgctg caacetecae eteccaggtt caageagtte teeetgccce 240
accetecgag tacetgggat tgeaggtgee tgacaceact gteetegag
                                                                  289
<210> 882
<211> 260
<212> DNA
<213> Homo sapiens
<400> 882
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tgggtgacaa agcaagactc tgtctccaaa aaaacccata aaaaaacaaa gaaaccccaa 120
caaaattgtg cattaaacat atggatctgc ttttctggtt tgtgttcact tccctgcctg 180
gcttgtgctt ctgtcctgtg ctaccccctc cacggccttc ctgcctggat cttgccctc 240
acctctgccg gcacctcgag
                                                                  260
<210> 883
<211> 357
<212> DNA
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<213> Homo sapiens
<400> 883
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ctggaataga attgttaagt ctgagcaaga aaaagcatag cgggttaagg acaagtgaaa 120
cgaagagaac cetetgteee tggcagaate tgcatgtaca tttettgtet gteettgtet 180
ctcttcttcc tgtctggccc attgcagaga gtattggaag tttccaacca ttggtggtac 240
totatgetca tectacetee tittgetgaaa gacagtgtgg cagegeeeet getgtetgee 300
tactaccetg actgtgttgg catgageeee teetgeacea geacaaaceg cetegag
<210> 884
<211> 144
<212> DNA
<213> Homo sapiens
<400> 884
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actgtaaccg gatgcaggct cgag
<210> 885
<211> 189
<212> DNA
<213> Homo sapiens
<400> 885
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gataccactg gtcccagaag cggtccgtca tcccaccctg aactcatcct tcacagccag 180
tccctcgag
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<210> 886
<211> 221
<212> DNA
<213> Homo sapiens
<400> 886
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tttttttgct tctgtcttac aagaatttca aatttttcta gaatccaact taccagtgtt 120
ttcctttaat gtggtggttc ttagccctgg ctatgcacta tacacaggct tttatgttta 180
caaageteee aagtgattet eetgtgacae tgaceetega g
<210> 887
<211> 250
<212> DNA
<213> Homo sapiens
<400> 887
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gctttatgtc tttatgcctg tttctgttgc tgggagtctc cagggggcac agtgtgggaa 120
tcacatgcat gctctgcccc tccctgcttg tagaggggag gggacaggat ggttaaaagt 180
gggcgtgccc tccagcaatc ccggttgtca tccagcacgg acttcatcac tcctctgcca 240
teceetegag
<210> 888
<211> 269
<212> DNA
<213> Homo sapiens
<400> 888
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agaettette cectateeet aacteatgea tggaaaaegt ttgteagget ggttteeega 180
gcctcctgca cctcaacatc acgctcaccc ttttgggttt agcccagtgt tatttagcaa 240
atttctccag ctgcaaggaa ggtctcgag
<210> 889
<211> 264
<212> DNA
<213> Homo sapiens
<400> 889
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aggicticaa ccciccaaag tcaccitcac acagigaage citcccigge catcitacci 240
acaatttcaa cccaaacact cgag
<210> 890
<211> 624
<212> DNA
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aacctgttcc tacatcactg gcccctgcag cagccgccac ctggctccct ggggcagccc 180
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agtgtattgg cctcaactac caagtgtggg gtggagtttt ctgagccttc cttagccacc 540
aagcgagcac gagaagacag tgggatggta cccctcatca tcccagtgtc tgtgcctgtg 600
cyaactgtgg acccccaact cgag
<210> 891
<211> 790
<212> DNA
<213> Homo sapiens
<400> 891
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catccagttt gactatttgg aggccttcta ggtggatcct tgtctgttca gttagccgag 240
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ccaaattatg cagatttgga gtttattttg gttaggtttc ccatgagtag gtatgtaggc 660
aacgtaatac tgttctcagt ttatatggtc tggaatttcc cttataaatg ttatataggc 720
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<210> 892
<211> 428
<212> DNA
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<213> Homo sapiens
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gcgtcgcttt tctttctccc ccttgtaatt tttatgaggg cgaatcctat gaaatggctc 120
attggaccgt tttctgtggt tcagcctatt tgctgttggc caaataacta gctgtggctt 180
ggtttttgaa attctctgca gatcagagct atagagctaa gagtttgagt atgaagaagc 240
ggggtettgt tetgetgeee tggetggagt geattgatge agtegtagea geeteeaeet 360
cccgggetca accgagecte eegeeteage etettgagaa getgggaete cagggggagg 420
<210> 893
<211> 164
<212> DNA
<213> Homo sapiens
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cctgcacata gatgcctata ctctcgctgt caaaaagcac gaag
<210> 894
<211> 419
<212> DNA
<213> Homo sapiens
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aaacccaaag cattttaact tatagettgt ttetaetttt taacatggaa tattcagttt 360
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<211> 460
<212> DNA
<213> Homo sapiens
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attgaggtet atgattacag ttttgtttge atatgtacet caaggaceta caggttatgt 420
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<210> 896
<211> 319
<212> DNA
<213> Homo sapiens
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gcagagatgc ggccgctttt tttttttttt ttttttgata agttggtgta aggctatgtg 180
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acttgatcaa aacagatgca gggcctctaa ataaaaggga tcatctgaaa ttaatgttgt 240
ttgaaattac tatctgattt tgagggttcc agratttctg tgaaaattca acaagaactc 300
cttggaaact ggtctcgag
<210> 897
<211> 601
<212> DNA
<213> Homo sapiens
<400> 897
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agtggagetg gecacataca etgtgegeac ettegeacte cacaagagtg getecagtga 180
gaagcgcgag ctgcgtcagt ttcagttcat ggcctggcca gaccatggag ttcctgagta 240
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ggcgctgctg gaggctgcca cgtgcggcca cacagaggtg cctgcccgca acctgtatgc 540
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<213> Homo sapiens
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gttttgatct agtaaaacat acaaaatgca caaaatataa aatgttaggc tctgaatcca 180
gaagaaaaaa agtteteaaa aacagtaeca taaattagat tattetaaca etateaacag 240
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aggetgeaaa acagaateca geeetgtgea gaaggeeege aggtagatte catgtaacee 420
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aatgaactca gtgaagcgaa tatagtctgt gccgagccgg cagagtcgat tcaggacact 540
ggtctcactg gggtggagga aagggaagtc ctgcgatacc tgcaggccac tccgcttgtt 600
ccaggtgaaa atggacccag ggtacccgct cagagccaag agcagttcgt ggatcattcc 660
cacggcggac ctcgag
<210> 899
<211> 391
<212> DNA
<213> Homo sapiens
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attggatgtg cccatcaagg ggcctctaaa ccaatttaag cccaaagtta actaattaca 180
atttctactg gttttagtaa aactagcata gtcaaccaag taaacaaagt ccattgttaa 240
tettatttga gttagetaac attacattet agtaatgggt acacetaaat atateatgae 300
ttgagtttca ttacattcag acataaacta caaattccta atgtgcaaac tactgttgac 360
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<210> 900
<211> 597
<212> DNA
<213> Homo sapiens
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<212> DNA
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gcatcagaca ctcctgtgcc actggctaga catgggttat ctcgtttcat gtccgaagct 480
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taggggcaat tttgctttcc tttttaacaa taaatttgaa ctgtgactga aaattggaat 300
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in is given. Nagring

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tttcactcct ttacgtgttt cattgtataa acacatcata gtttattcat ccttacttct 360
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<212> DNA
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cacccattac aagtactctg tcatctccag cagactgtac accatcaaat tctattagaa 420
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<213> Homo sapiens
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cccgcatgga gatctttgct cacaaaacag tcctgctaag tgaaatagtc atagtaatta 180
caataataag tatgatggta gctaaacatt taatgagtac ctattatagg ccaaactc 238
<210> 926
<211> 737
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
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<220>
<221> unsure
<222> (117)
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<221> unsure
<222> (124)
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<222> (151)
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<222> (178)
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<222> (201)
<220>
<221> unsure
<222> (211)
<220>
<221> unsure
<222> (352)
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nagggatgta ggggtgaggg tggaaaccat ccacaggaga gatgtggaca gacacanagg 120
gatntagggg tgagggtgga aaccatccac naggagagat gtgtggacag acacagangg 180
atgtaggggt gagggtggaa nccatccaca ngagaggtgt gtggacagac acagagggat 240
gtaggggtga gggtggaaac catccacagg agaggtgtgt ggacagacac agagggatgt 300
aggggtgagg gtggaaacca tccacaggag aggtgtgtgg acagacacag anggatgtag 360
gggtgagggt ggaaaccatc cacaggagag atgtgtggac agacacagag ggatgacgag 420
gtgaacagat ggaaaattca gatcaaaagc tgcaaaggag aatacttgat tttgctttct 480
gtagaacttt tataaactta gttgccagat aatgtaaccc atgaaatttg aagtatatac 540
tgctctccaa aatggagttg ctttgttaaa ttaagaaata ctatactgtt tttaaaatga 600
gtttggtttg gtttggtttt gtttgttttt tccctgaggg gataaaggga gtcaggatca 720
acagtactgg cctcgag
<210> 927
<211> 829
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (443)
<400> 927
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acgggtactg aaacgtaatg agtaatgtct agagattttc tccacaggat agaaacaaag 120
ctcaaagagg cagcaagttg aagaaagtgt gacactgttt tatttttagg attttttcct 180
cttttttaaa ataaatatac gtgtagagag acagggtctc cctttgttgc ccaggctgat 240
ctcgaactcc tgagctcaag ctgtcctccc acctcagcct cccaagggct gggatcactg 300
geatgageet etgeaceeag ecettaggat tittititet tittitaaaat titaattatt 360
ttatatatat ttttaagttc cagggtacat gtgcaggatg tgcaggtttg ttacataggt 420
anacytytyc catygtyytt tyntycacct ytcaccctyt cactagycat gaggaccayc 480
atgeattage tetttteect aatgttetee atgeeceetg geocageest etcecaacag 540 ·
gccccagtga gtgttgttcc cctcccggga ttttttttct taaggaaaca caccacatca 600
ggcgttgaag tgagtgtatt gactgtctga ggtttgtgtg cactttttaa ccagaagtca 660
tggctgggga cacaaaagca cctccttgcc tatgtagttt tgttccttta ctgctttaaa 720
caageaagat gtggtttgca tteetttege tgetggtgtt gttggetttg tgtttetcaa 780
cagaaataac ttgccttgcc tttgctctca aggttgtgaa agccccca
<210> 928
<211> 542
<212> DNA
<213> Homo sapiens
<400> 928
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tttatgttgg tcattaggtg aatattactc attttccctc aagagaagct cataagtgtg 120
tgtgggtgtg agagcacgat ggtgcctgtg ttctgtgaat gtgtccatat gtgtctgtaa 180
gagagacaga gaccaagaac ttgcccaatt ttagaaatac actaatgtgc agttgttgcc 240
ttttgtctgt attgaaggcc cattgaatga ctaatccagg ctggaagcat tcccatgtgg 300
gtgtctgagt ccatgagcca agcctgaggg gacagtgagt ctccaggtct gccacactgg 360
tgcaccttgc tggcacggtg cctcaggaag gtggcgactc aggtgggcct tgagttatat 420
tttaactcag ctgctcagtt cccagggcac atttctggat cagaacccat gggaaacagg 480
aggtactaag tgcaatgtct tagcattctg caaaatggag atctgttgtc cagcagctcg 540
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ag
<210> 929
<211> 693
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<212> DNA

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<213> Homo sapiens
<400> 929
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tcaattgttg attttaacat gtcatctgct ttgactcgac aaagttccaa aatgtttcat 180
gccaaagaca agctacaaca caagagccag ccatgtggat tactaaaaga tgttggctta 240
gtaaaagagg aagtagatgt ggcagtcata actgccgcag aatgtttaaa agaagagggc 300
aagacaagtg ctttgacctg cagccttccg aaaaatgaag atttatgctt aaatgattca 360
aattcaagag atgaaaattt caaattacct gacttttcct ttcaggaaga taagactgtt 420
ataaaacaat ctgcacaaga agactcaaaa agtttagacc ttaaggataa tgatgtaatc 480
caagatteet etteagettt acatgtttee agtaaagatg tgeegteete attgteetgt 540
cttcctgcgt ctgggtctat gtgtggatca ttaattgaaa gtaaagcacg gggtgatttt 600
ttacctcagc atgaacataa agataatata caagatgcag tgactataca tgaagaaata 660
cagaacagtg ttgttctaga tggggaactc gag
<210> 930
<211> 549
<212> DNA
<213> Homo sapiens
<400> 930
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aagettttat ttatettett ettgateete tetttggtee ttgtatetea atgetatgat 120
caaaacccta ggggttacca agaccctcag gagaaactaa gagagtgcca acaacgttgt 180
gagagacaac aaccaggaca acagaaacag ttgtgcaaac aacgttgtga acaacagtat 240
aggaaagagc aacaacaaca acatggaggg gagactggtg aagatgatct aggcaatcgt 300
gggcctgata agagctacaa aagattgcaa gaatgccaac gtaggtgcca gagtgaacaa 360
cagggccaac gactacaaga gtgtcaacaa cgttgtcaac aagagtacca aagagagaaa 420
ggacaacacc aaggtgaaac taacccacag tgggaacaac aagaaaaatc aaacaatcca 480
tacttattcg agtctcagcg attcaggtct cgattcagag ctagtcatgg tgatttccga 540
atcetegag
<210> 931
<211> 487
<212> DNA
<213> Homo sapiens
<400> 931
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attgatgaaa gtataaaatt aacatcatca gctataccct gcagatcttc ataacatgat 180
ttgattaccc catctgtcac cattaggcaa gaccctaata tatttcataa aaatcagcag 240
cactttaagg ggaaactetg etgecatgaa ggaaaatata ttaatattt etggettgaa 300
anattagtgt tttttgtttg tttgtttttt aataaatttg gctttctatg tgattttatg 360
tgtaggtttg ctctatgctg taggaggtta tgatggagca tcacgtcagt gtcttagcac 420
agtagaatgc tataatgcta caacaaatga gtggacctat atagcagaaa tgagcaccag 480
gctcgag
                                                                  487
<210> 932
<211> 169
<212> DNA
<213> Homo sapiens
<400> 932
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tectecteat etaatgetea tetgtttaat ggtgatgeet egegtacagg atetggttae 120
ctgtgcagtt gtgaataccc agaggttggg cagatcagtg tctctcgag
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<210> 933

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<211> 877
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (68)
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<221> unsure
<222> (255)
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<221> unsure
<222> (309)
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<221> unsure
<222> (320)
<400> 933
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aaaagaccag cccaaaagtg ctcaacttcc tccagaaact ttggcgacaa tgttggcctg 180
tetgeaaget tgtgeaggga gtgtttetea ggagetatea gaaactatee teaceatggt 240
agceaattge agtantgtta tgaataagge cagacaacca ccacctggag ttatgecaaa 300
aggacgtent cetagtgetn geagettaga tgecatttet cetgtteaga ttgaccetet 360
tgctggaatg acatetetta gtataggtgg ttcagetgcc ceteacacec agagtatgca 420
gggttttcct ccaaatttgg gttctgcatt cagtacccct cagtcaccag caaaagcatt 480
tecaccectt teaaccecca ateagaceae tgeatteagt ggtattggag gaettteate 540
acagetteca gtaggtggte ttggcacagg cagectgact ggtataggaa etggtgetet 600
tggactccct gcagtgaata acgacccttt tgtacagagg aaactgggca cctctggact 660
gaatcageet acatteeage agagtaagat gaaacetteg gaettgtete aggtgtggee 720
agaggcaaac cagcacttta gtaaagagat agatgatgaa gcaaacagct atttccagcg 780
aatatataat catccaccac atccaaccat gtctgttgat gaggtattag aaatgctgca 840
gagatttaaa gactctacta taatgaggga actcgag
<210> 934
<211> 194
<212> DNA
<213> Homo sapiens
<400> 934
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attegggate tgateacttg actgageaaa ettgetettt cettttattt aaaacacaaa 120
agagggcgct cgag
<210> 935
<211> 161
<212> DNA
<213> Homo sapiens
<400> 935
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ctgactgcat atattaggaa agaagatcta aaatcaatca tctaagcttc cattttagaa 120
aactagaaga gcaaatgaaa cccaaagtaa gtgttctcga g
<210> 936
<211> 108
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<212> DNA
<213> Homo sapiens
<400> 936
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ctggggccta gtggccagtg gaaccacacc caacactgca ggctcgag
<210> 937
<211> 214
<212> DNA
<213> Homo sapiens
<400> 937
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tgctgtgcca cccaccaaag agaaagtgtc cacacaggac cagcccatgg caaacctatg 120
taccccatct tcaactgcaa acagttgcag tagctctgcc agcaacaccc cgggagetcc 180
agaaactcac ccatccagta gtcccaccct cgag
<210> 938
<211> 512
<212> DNA
<213> Homo sapiens
<400> 938
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ccacctgcct cagcetecca aagegttgag attacacaca ggagecacca eteccagetg 120
ctaatttgtt tttatacttt cttttgtgtt tattaaactc atttttattt aatatgtagg 180
atagagttag tagttatcaa ataagtggca gcttttaccg catcgagatt gttaacttaa 240
cctagttgaa cactagaggg acttcaaact aatcactgaa gtttgagttc agtagtatat 300
tragtagtat atactttgtt taaaagtgra gaarcaraa gtttttttcc cccaactctg 360
tggttttcat aagactaagt attatgccta aaattttacc tggtaactta tttggttaat 420
taatteteag gitaatagae catatataaa atgitaaeete tgeeaatata tgitatateaa 480
agcaaaaac ttttgttcat ggccccctcg ag
                                                                   512
<210> 939
<211> 160
<212> DNA
<213> Homo sapiens
<400> 939
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gaattccagc tetgettett acttgttgca ggaetttgga ceetctaage etcattttee 120
tcatataaaa atgagaatag gccgagcccg gttgctcgag
<210> 940
<211> 121
<212> DNA
<213> Homo sapiens
<400> 940
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cctgcaggac tttatgtgga tccgtatgag ttggcttcat tacgagagag cgttcctcga 120
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<210> 941
<211> 208
<212> DNA
<213> Homo sapiens
<400> 941
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atcgtacaga agaatgatcc atttgtggtg gactgctcag ataagcttgg gcgtgtgcag 120
gagtttgaca gtqqcctqct qcactqqcqq attqgtgggg gggacaccac tgagcatatc 180
                                                                  208
cagacccact tcgagagcaa gactcgag
<210> 942
<211> 291
<212> DNA
<213> Homo sapiens
<400> 942
cctaaaccgt caagcgattc tgcctcagcc tcccgagtag ctgggattac aggcatgtgc 60
taccattect ggetaatttt tgtactttta gtagagacag ggttttgeca tgttggccag 120
getggteteg aactteegae eteaagtgat ecaeceaett tggeeteeea aagtgetggg 180
atgacgggtg agccactgca cctggccaag agggctgata gtaaattatt gcaagtgaaa 240
aaactaacga tgcaaatgaa aggggtagct atagaagcca agcccctcga g
<210> 943
<211> 200
<212> DNA
<213> Homo sapiens
<400> 943
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agaaaaagc agggtaagaa gagaaagtgg tggagctgag ctgggcagag tggctctttt 120
agaagcgatg acatttacac ataggtcact atggagaggg ccatgcagac acctggagga 180
gtgccaccaa caggctcgag
                                                                  200
<210> 944
<211> 895
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (642)
<400> 944
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tggcatctct aagaggactt ttgaagaaat aaaagaagaa atagccagct gtggagatgt 180
tgctaaagca atcatcaacc tagctgttta tggtaaagcc cagaacagat cctatgagcg 240
attggcactt ctggttgata ctgttggacc cagactgagt ggctccaaga acctagaaaa 300
agccatccaa attatgtacc aaaacctgca gcaagatggg ctggagaaag ttcacctgga 360
gccagtgaga ataccccact gggagagggg agaagaatca gctgtgatgc tggagccaag 420
aattcataag atagccatcc tgggtcttgg cagcagcatt gggactcctc cagaaggcat 480
tacagcagaa gttctggtgg tgacctcttt cgatgaactg cagagaaggg cctcagaagc 540
aagaaggaag attgttgttt ataaccaacc ttacatcaac tactcaagga cggtgcaata 600
ccgaacgcag ggggcggtgg aagctgccaa ggtgggggct tnggcatctc tcattcgatc 660
cgtggcctcc ttctccatct acagtcctca cacaggtatt caggaatacc aggatggcgt 720
gcccaagatt ccaacagcct gtattacggt ggaagatgca gaaatgatgt caagaatggc 780
ttctcatggg atcaaaattg tcattcagct aaagatgggg gcaaagacct acccagatac 840
tgattccttc aacactgtag cagagatcac tgggagcaaa tatccagaac tcgag
<210> 945
<211> 296
<212> DNA
<213> Homo sapiens
<400> 945
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tgatectgqq ettectectq ttecgaggcc acaacteeca geccacaatq acccagacet 120
ctagetetea gggaggeett ggeggtetaa gtetgaceae agageeagtt tetteeaaee 180
caggatacat cccttcctca gaggctaaca ggccaagcca tctgtccagc actggtaccc 240
caggegeagg tgtccccage agtggaagag acggaggeac aagcagagat ctcgag
<210> 946
<211> 481
<212> DNA
<213> Homo sapiens
<400> 946
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geoccattta cattatteg tggattteac cagcatagta tagtttttt etgtaagtee 120
ctcattctta tgtaataaca ggtggaactg aggtttgaag aacctcagtg gcccatcctg 180
atgacattgg agactcaaag agacaagaga gagtagggtt taaaacctga gctttaagac 240
teccactage tregtgteet trggeatgtt aacgtgeete agttteetea tetgtataat 300
ggggatatat gaaaggcacc agtcctaagg tgaacattaa gtgagatgat tctagttaca 360
gacttagaac aatttccagc acatagttaa atatccagga aattctggta ctgttatgtg 420
tgggtgagct gacctggatg tagatgtttt cetetetett getgaeceet cegeectega 480
<210> 947
<211> 292
<212> DNA
<213> Homo sapiens
<400> 947
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gagaggcata ttttgacatt cttccattca tctctctgcc tattcattca ttcaaaaaatg 180
cttattgatc gcctactcga tgagacgcac tgttctagcc actggggctc cagcagtgaa 240
caggatgage aaggreettg ttretetaaa gettaegete attecaeteg ag
<210> 948
<211> 690
<212> DNA
<213> Homo sapiens
<400> 948
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tggtttatca ttgtaatcag cttcttacca aatacagaag gtttcagcag agcagcttta 120
ccatttgggc tggtgaggcg agaattatcc tgtgaaggtt attctataga tctgcgatgc 180
ccgggcagtg atgtcatcat gattgagagc gctaactatg gtcggacgga tgacaagatt 240
tgtgatgctg acccatttca gatggagaat acagactgct acctccccga tgccttcaaa 300
attatgactc aaaggtgcaa caatcgaaca cagtgtatag tagttactgg gtcagatgtg 360
tttcctgatc catgtcctgg aacatacaaa taccttgaag tccaatatga atgtgtccct 420
tacatttttg tgtgtcctgg gaccttgaaa gcaattgtgg actcaccatg tatatatgaa 480
gctgaacaaa aggcgggtgc ttggtgcaag gaccctcttc aggctgcaga taaaatttat 540
ttcatgccct ggactcccta tcgtaccgat actttaatag aatatgcttc tttagaagat 600
ttccaaaata gtcgccaaac aacaacatat aaacttccaa atcgagtaga tggtactgga 660
tttgtggtgt atgatgatgc tatactcgag
                                                                  690
<210> 949
<211> 337
<212> DNA
<213> Homo sapiens
<400> 949
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caagtcctct cttcacttaa caagatgaga aagacaatag gtggtgtggc tctctggcga 120
cagcaaatct gegeaattge aagggttege ttgttaaagt taaageatga aagaaaaget 180
cttttagcac tgctattaat tctaatggct ggattttgcc ctcttcttgt ggagtatacc 240
atggtgaaaa tatatcaaaa cagttacacc tgggaacttt ctcctcattt gtatttcctt 300
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<210> 950
<211> 334
<212> DNA
<213> Homo sapiens
<400> 950
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taccgcattg atcttactta tgaagaagtc ttctattttg ttaaacgcca agactggaag 180
aaacttetgg aatttgatea aetaeageta eagaaateaa gtggaaaaat ttttaaggae 240
tttcacgaag gagccattaa ctttggaccc acctacaagt atgacgttgg ctcagccgcc 300
tacgatacaa gcgacaaatg ccgcacccct cgag
<210> 951
<211> 140
<212> DNA
<213> Homo sapiens
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ttgtgagatt tcaaagatta agattatttt gataacatta tttacagatt taaaagatgt 120
ggttatcacg cgctctcgag
<210> 952
<211> 180
<212> DNA
<213> Homo sapiens
<400> 952
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ctcttggaga ctttgcgttc ccagacgaat ttgtctttga tgtttgggga gtcattggtg 120
atgccaaacg aagaggatta tgatgtgtac actccatctc tgaagaaaca acccctcgag 180
<210> 953
<211> 528
<212> DNA
<213> Homo sapiens
<400> 953
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acaagaaaga agttaaatga atatgaaaat ggagaattta gtttccatgg agatttaaaa 120
actagtcaat ttgaaatgga tattcagatt aataagctaa aacataaggt tgaagaagaa 180
aggaaaaaac acagaaataa tgaaatggaa gtatcagcaa acatacatga tggtgctact 240
gatgatgctg aagatgatga tgatgatgat ggattaattc aaaaaagaaa gagtggagaa 300
actgatcatc agcaatttcc caggaaggaa aataaagagt atgctagtag tggtcctgcc 360
ttgcaaatga aggaagtaaa gagcactgaa aaagaaaaac ggacctcgaa agaatctgtg 420
aattcaccag tgtttgggaa ggccagttta ctaactggtg gcctgctaca agtggatgat 480
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<210> 954
<211> 132
<212> DNA
<213> Homo sapiens
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ctgtgtctcg ag
<210> 955
<211> 756
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (135)
<220>
<221> unsure
<222> (188)
<400> 955
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tctgaagaag aggtnaacaa aatggaatca cagttgcaaa acgactctaa aaaagcaatg 180
caaatcomag aacagaaagt acaacttgaa gaaagagtag ttaagttacg gcatagtgaa 240
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<220>
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<222> (54)
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cagtaattga agatccccag tcaaatttga atgatgatgg ttttactgaa gtggtatcca 240
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aggtctggaa caaaaagaat gcaaatgaaa aaggaagaag ccagacttct aagcttcctc 360
caagatttgc caaaaaacag gctacaggga tccagcaagc acagtcttca gcctcagttc 420
cacctetage tteggeteea ettecacett caaccteage tteagtteea geeteaacet 480
cagetecact tecageaace ttaactecag ttecageete aaceteaget ceggttecag 540
ceteaacttt ageteeagtt etggeeteaa ceteagetee ageteeagee teaccettag 600
ctccagtttc agcctcagcc tcagtctcag cttcagttcc agcctctact tcagctgcag 660
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<210> 958
<211> 432
<212> DNA
<213> Homo sapiens
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atatacaact tagttgatat ggaaagaaaa aatgateete taeetattte caeagttggt 180
acaagaggaa agggccctaa aagagatgaa caataccgta tcatgtggaa tgaattagaa 240
accettgtca gageceatat caacaactca gagaaacate aaagagtett ggaatgtetg 300
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caagatctcg ag
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<211> 481
<212> DNA
<213> Homo sapiens
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tcattactca ggaatgatgt ccattcagga gaaatcaaaa gagaattcct ccaaagttac 180
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aataaatcag ccagaattgg aaacacgcat gagtacaagg tcatcaaagg cagcatctaa 360
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<211> 123
<212> DNA
<213> Homo sapiens
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<210> 961
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<213> Homo sapiens
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PCT/US99/24206 WO 00/21991

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cgaataccgc tcacagtcga tgccgggggt gcttcttttg gatgggctac atctggagtc 240
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gatggggaac tctcaaccct cgag
<210> 962
<211> 517
<212> DNA
<213> Homo sapiens
<400> 962
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agatccacaa ctatctgaga tgctgctata tatgataaaa gaaggaacaa ctacagttgg 180
aaagtataaa ccaaattcaa gccatgatat tcagttatct ggggtgctga ttgctgatga 240
tcattgtact atcaaaaatt ttggtgggac agtgagtatt atcccagttg gggaagcaaa 300
gacatatgta aatggaaaac atattttgga aatcacagta ttacgtcatg gtgatcgagt 360
gattettggt ggagateatt attttagatt taateateea gtagaagtee agaaaggaaa 420
aaggccatct ggaagagata ctcctataag tgagggtcca aaagactttg aatttgcaaa 480
aaatgagttg ctcatggcac agagatcaca actcgag
<210> 963
<211> 163
<212> DNA
<213> Homo sapiens
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attttttta gcagacctca tttttagaag tgaaaacctc gag
<210> 964
<211> 181
<212> DNA
<213> Homo sapiens
<400> 964
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ggctttccag atgcatagaa gtctcctctg ccagatcctt ctcctcttgt ctgacctcga 180
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<213> Homo sapiens
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<221> unsure
<222> (56)
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Conditions.

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<212> DNA
<213> Homo sapiens
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tggaattgct gcccctgttt tcagtcttca aaaaatggag aaagtgaatt gccacctaaa 180
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<212> DNA
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gagetgggaa tgtgactget ggageetgag aggtggagga gttetgatee eeegttaett 240
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gtgtgtgttg gtggctgtgc gcacgcacac aagacgggag tcaccctgtg cttcctgccc 360
aagatactga cccattgaac ccccaaagca tetttetete cacaaagtee gtggtgeett 420
cctggtgggc tgcagacact aatggtgttg gggggtcttg gaacagcttc tctatgtgtg 480
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<212> DNA
<213> Homo sapiens
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attetgetae taccacteca eccateaagt gtttetgeta atgaactega g
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<211> 119
<212> DNA
<213> Homo sapiens
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<211> 221
<212> DNA
<213> Homo sapiens
<400> 973
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ttcctgcagc ctctgtcccc cggggttcaa gtgactctcg tgcttcagcc tcccgagtag 180
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<210> 974
<211> 188
<212> DNA
<213> Homo sapiens
<400> 974
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<212> DNA
<213> Homo sapiens
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acttcgggct aaagagaact ctgcttctta aaatcctctt gatttcttct tctgggagcc 180
tegatggeec caggaageca geggteecag teeegcagec ttgeeccaca accagecace 240
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ctaagcaaag tggctcacag agtaggggaa gcaagacacc attcctactt aacgatgaaa 180
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<210> 977
<211> 139
<212> DNA
<213> Homo sapiens
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gtgtcttatg aaattctgtt tcctttttt ggttgcttat atgtattcta taaagacact 120
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<210> 978
<211> 192
<212> DNA
<213> Homo sapiens
<400> 978
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tttgtttgtt tgtttgtttt ggttttttt gagatgaagt cttgctttgt tgcccgggct 180
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<210> 979
<211> 240
<212> DNA
<213> Homo sapiens
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atgtttttca ttctgaaagt atcagttatt ttcctgttat tatctgtggt aacattgctt 180
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<210> 980
<211> 564
<212> DNA
<213> Homo sapiens
<400> 980
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gaccttccaa gatttttata agatgtgtag ttgtgaatat ataaagttag ttacaaattc 180
ccaggtcaaa agaaattatg aattataaga ggtatacaga acagaagcag catttggatg 240
ccggataata ttattgtatt ttccttcatg ttctcctgcg tagtttctga tgaagaacaa 300
tragtagtat argttreagg aatttretget gaaggaaatg tragatraag aracaagetg 360
atgagtecaa aagetgatgt taaaettaag aettecaggg tgaetgatge tteaatetee 420
atggagteet taaaaggeae aggagattea gtagatgaae agaatteetg caggggagaa 480
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<210> 981
<211> 191
<212> DNA
<213> Homo sapiens
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tcacatgtac geoggecact gtggccgccg tcagcagcac cgagaggecc agcaccacct 180
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<210> 982
<211> 170
<212> DNA
<213> Homo sapiens
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ctcaccacag catcaactat ttgcactcaa gtaatccccc catcctcgag
<210> 983
<211> 744
<212> DNA
<213> Homo sapiens
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<211> 666
<212> DNA
<213> Homo sapiens
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acceccagea agagetetaa geagageeeg gtgeegaeet ttteetteaa ggteetgaeg 180
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<211> 517
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (161)
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tttaattatg caatgectag ttectaaatg gattggagge naattacegt aaattttgaa 180
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cagatecttg ggatgeaaag gtaaataaga caaateeett ttgeecaaag ageteaceat 480
caagttgggg gagggaaagt ggaattcaaa acatgttaat aaatcatcat agtactgtga 540
gataagtgca attaagaagc tagttataaa gtatagggga aatagaggag taatcatgtc 600
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<211> 379
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (11)
<220>
<221> unsure
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<220>
<221> unsure
<222> (66)
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ggetetettg geageettee tgatttetge agetetgtgt gaaggtgeag ttttgecaag 180
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tgtaaagett tetgatggaa gagagetetg tetggaeeee aaggaaaaet gggtgeagag 360
ggttgtggag ccgctcgag
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<210> 988

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<211> 339
<212> DNA
<213> Homo sapiens
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gcagccttcc tgatttctgc agctctgtgt gaaggtgcag ttttgccaag gagtgctaaa 180
gaacttagat gtcagtgcat aaagacatac tccaaacctt tccaccccaa atttatcaaa 240
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<210> 989
<211> 396
<212> DNA
<213> Homo sapiens
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ccaggtaatt gtcacataca gtctttcttc tctacttctg cttcattctc tttgtgtcac 180
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tttccttgtc tccctttgct tgtaactacc aggacttctg ctccggcttc tccggctcct 360
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<210> 990
<211> 316
<212> DNA
<213> Homo sapiens
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ccaggetaga gtgcagtggt gcagtettgg etcactgcaa ecteegeete etgggttega 180
gcaattetee tgceteagee teetgagtag etgggattae aggeaegeat caccacacce 240
ggccagtttt tgtattttta gtagaaatgg ggtttcacca tgttggctag gatggtctca 300
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<210> 991
<211> 388
<212> DNA
<213> Homo sapiens
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taaaagaaga agtagagaag ataaatcctg tcttcaatac ctggaaggaa aaacaaaata 180
acctcaactc cgttttgaaa aaaacattcc aagaactttc atcagagatt ttacttagat 240
gatttacaca atgaagaaag tacatgcact ttgggcttct gtatgcctgc tgcttaatct 300
tgcccctgcc cctcttaatg ctgattctga ggaagatgaa gaacacacaa ttatcacaga 360
tacggagttg ccaccactaa aactcgag
<210> 992
<211> 361
<212> DNA
<213> Homo sapiens
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gagtgetaaa gaaettagat gteagtgeat aaagaeatae teeaaae: it teeaceecaa 240
atttatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat 300
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<211> 378
<212> DNA
<213> Homo sapiens
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gccaccttca ttccccaagg gctcgctcag ccagatgcaa tcaatgcccc agtcacctgc 180
tgctataact tcaccaatag gaagatetea gtgcagagge tegegageta tagaagaate 240
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tgtgctgacc ccaagcagaa gtgggttcag gattccatgg accacctgga caagcaaacc 360
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<211> 367
<212> DNA
<213> Homo sapiens
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gacttttaaa aacaactttt tttttccact tttttaaaaa atgcactact gtgtgctgag 300
egettttetg atectgeate tggteaeggt egegeteage etgtetaeet geageaeaea 360
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<211> 133
<212> DNA
<213> Homo sapiens
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gccggtgctc gag
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<210> 996
<211> 414
<212> DNA
<213> Homo sapiens
<400> 996
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ttettettae tegecaaagt cagggtteee tetgecegte cegtattaat atttecaett 120
ttggaactac tggccctttc tttttaaagg aattcaagca ggatacgttt ttctgttggg 180
cattgactag attgtttgca aaagtttcgc atcaaaaaca acaacaacaa aaaaccaaac 240
aactctcctt gatctatact ttgagaattg ttgatttctt ttttttattc tgacttttaa 300
aaacaacttt tttttccact tttttaaaaa atgcactact gtgtgctgag cgcttttctg 360
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<210> 997

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<212> DNA
<213> Homo sapiens
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tatgatetta etgatgtaca eaetttggat acaetggatg etcatgteaa aaggtgteaa 180
ctcatcttca tetecatect ettectcace atcacettet tettecteet cetetteete 240
cocaccttct tectettett egtetacete attgteagee tectgeteee catttteete 300
attageatte cegttageag gggegtetet tecattttet geetetteea caactteett 360
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<211> 394
<212> DNA
<213> Homo sapiens
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tatgatetta etgatgtaca eaetttggat acaetggatg etcatgteaa aaggtgteaa 180
ctcatcttca tetecatect ettectcace ateacettet tettecteet eetetteete 240
eccacettet teetettett egtetacete attgteagee teetgeteee catttteete 300
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<210> 999
<211> 118
<212> DNA
<213> Homo sapiens
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<210> 1000
<211> 110
<212> DNA
<213> Homo sapiens
<400> 1000
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cagaagtagt tgctattatt aatcctgttt tacagatgag gatcctcgag
<210> 1001
<211> 494
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (143)
<220>
<221> unsure
<222> (287)
<400> 1001
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accgagaggt cgatgcggcc acnagtgcca cctcccacac gcggtccctg aatagcatca 180
tocaccagat ggagaagtte tecageagee tgeaegagtt gteeteeege gtggaggeet 240
cgcacctcac cacctcccag gagcgggage tggggatccg gcagcgngac gagcagctgc 300
gggcactgca ggagcggctg ggccagcagc agcgggacat ggaggaggag cggagccggc 360
aacaggaggt catcgggaag atggaggcac ggctgaatga gcagagccgg ctgctggagc 420
aggaacgctg gcgggtgact gccgagcagt ccaaggcgga gtccatgcag cgcgccctag 480
tggagcgtct cgag
<210> 1002
<211> 370
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (8)
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ccaggctgct cttggggacc agccacgtga tatcctttgt ggggcagctg atgaagttct 180
agetgtteta aagaatgaaa agetgeggga caaggaaagg egaaaggaga ttgacetget 240
gctgggtcaa acagatgata ccagatacca tgtgctagtg aacctgggca aaaagatcac 300
agactatggt ggagataagg aaatccaaaa tatggatgac aacattgatg agacatacgg 360
tggtctcgag
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<211> 568
<212> DNA
<213> Homo sapiens
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ttgtagagac tgcatccccg agacgatggc ggagggagat aatcgcagca ccaacctgct 120
ggctgcagag actgcaagtc tggaagaaca gctgcaagga tggggagaag tgatgctgat 180
ggctgataaa gtcctccgat gggaaagagc ctggtttcca cctgccatca tgggtgtggt 240
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ttttgttatg tttttgtgct tggctgacta ccttgttccc attctagcgc ctagaatttt 360
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acaacaagtc cacaaccaac ttctcgag
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<210> 1004
<211> 551
<212> DNA
<213> Homo sapiens
<400> 1004
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taggtcagat attaaaaaat tgttcatatc aaaattacct tatatggatt attgccatgt 180
tttttgagag ttaattattt actgttttct aattettgcc agtatttatg aacagetgta 240
gcttgatatt tacctactga attttaggag aactaatggt cacagtttgg gttcttttat 300
gtgtatgttt ttaaaacagc tattttgtga atctaggtgg ttggttttta gaagatttca 360
ggagatgcag tccagcacaa ttagagctgg aacattgtta cagcaggctt tttgttgctc 420
atgggcagat agagggaaag aatcagttgt tagccccaaa tttccacatt tcagtgttgt 480
aaactctgaa tgtgataggt agatgtgggc taagaataat ttcctccagt gaagacacgg 540
gagaactcga q
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<211> 662
<212> DNA
<213> Homo sapiens
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cagaatccgt gaaatttgac gcacgttcaa tgacagcatc cettectcac agcactaaaa 180
atggcccctc ccttcaggag aagttgaagt ccttcaaggc tgccctcatt gctctctacc 240
teettgtgtt tgeagtacta atacetgttg ttggaatagt aacagtecag gaacatggga 300
atteactgga tgeaatetee aagteettge agagtetgaa tatgacaetg ettgatgtte 360
aactccatac agaaacactg aatgtcagag tccgtgaatc tacagcaaag caacaggagg 420
acatcagtaa attggaggaa cgtgtgtaca aagtatcagc agaagtccag tctgtgaaag 480
aagaacaagc gcacgtggaa caggaagtaa aacaggaagt gagagtattg aacaacatca 540
ccaacgacct cagactgaag gactgggaac actcacagac actgaaaaac atcaccttca 600
ttcaagggcc tcctggaccc caaggtgaaa agggagacag agggcttact ggactactcg 660
<210> 1006
<211> 166
<212> DNA
<213> Homo sapiens
<400> 1006
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tgggggaaaa ggagcactgg gcacagagag tgtgcgcata ctcgag
<210> 1007
<211> 236
<212> DNA
<213> Homo sapiens
<400> 1007
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ccacaggtcc cagtccacac cctgtcatca ttcgctgggc gagctcaggc ctgtcactga 180
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<210> 1008
<211> 147
<212> DNA
<213> Homo sapiens
<400> 1008
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taaagetata taataeteag atttgggeae tgtaatgaet atatetgtge tgttaattae 120
atgtatttaa aacgtcacat actcgag
<210> 1009
<211> 699
<212> DNA
<213> Homo sapiens
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atttattttt acctaaaatg acaatactta ctgggttgcc aaggagaata gttaagttgt 180
agctaaagat gaaaagccca gagtaggcaa gtaagaaaac cgaattggta aaacttcttt 240
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ctccacagga cttctgttag tgatttgttc atgaactttg aaaggagcaa tggcagttcc 300
teccegatet cegitetaet caccacatee caatacegta aagittatga geagaggaat 360
ttaacataat gcattttaag ttcataaact aacaaaataa cttcagatct tttaaaaaatg 420
etttttagaa gtttggeetg catttetace tttttcacca tattetgtet ceteagetac 480
ctcctaactc cctgaactta aaactctctg gggtcgcttt ccattaatag cttttgactt 540
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<210> 1010
<211> 195
<212> DNA
<213> Homo sapiens
<400> 1010
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ctatacttgc acctaactct gggggcttca ctttctatcc ctacaattac tcaaacagat 180
aaaaggctac tcgag
<210> 1011
<211> 162
<212> DNA
<213> Homo sapiens
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tgctcatggg gcctttctgt gaagtagtgc ttgtggttga tattatggtt ttgaacagct 120
cagctgaaga agttattgtc acagctgtga tacgcactcg ag
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<210> 1012
<211> 478
<212> DNA
<213> Homo sapiens
<400> 1012
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tattatccga atttttttt ctgcaagcca ctgatagtct ctgctaacta gcttaattga 120
cctttttaca aagtttgatc cccaagcatc ctcaactaaa tcattgaata cttcaatcag 180
gatattatet getttaettt acaaataaaa ceaaatettt tgtcaacagg atgaaaceca 240
tettaaagga aagaaagga attggtgtga agagagaagt tagagaaggg aaatgcagtg 300
aattactatc tgtgtccatc aggaagtttg tcctgttaac caaatggtta ctgcactacc 360
agggttactg gtttattttc cagggagctg ataaagcagg agaactgttg ctgcatgttt 420
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<210> 1013
<211> 528
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (172)
<220>
<221> unsure
<222> (177)
<400> 1013
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gttgtgccct ctacaagcac aggaggagtt gctctaccta ttacaacagc cntaganaca 180
gttaacattc atggagatca ctctcttaag aataaagctg agcttgctga ttccatgaaa 240
aatgaagcag ggatcgatga agggcatgtg ataggagaat ctgagtcagt gcacagtggt 300
gegtetaage atteagtaga gaaagteaca gagetageaa aaggteacet eetteetgga 360
gtgccagtag aagaccagag cctaccagga gaggccagag ccctagaagg atatgcagat 420
agaggtaatt tcccagcaca tccagtgaat gaagagaaag agactaaaga agggtctgtt 480
gcagttcaga ttcctgactt actggaagac aaagcacaac agctcgag
<210> 1014
<211> 478
<212> DNA
<213> Homo sapiens
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taaageteag teettttatg aaegtgaget tgataetttg aaaaggteae agetttttae 180
agcagaaagc ctacaggcca gcaaagaaaa ggaagctgat cttagaaaag aatttcaggg 240
acaagaagca attttacgaa aaactatagg aaaattaaag acagagttac agatggtaca 300
ggatgaaget ggaagtette ttgacaaatg ccaaaagett cagacggcae ttgccatage 360
agagaacaat gttcaggttc ttcaaaaaca gcttgatgat gccaaggagg gagaaatggc 420
cctattaagc aagcacaaag aagtggaaag tgagctagca gctgccagag agctcgag 478
<210> 1015
<211> 515
<212> DNA
<213> Homo sapiens
<400> 1015
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teetgtgatg aaactgagga ategggtgge egggeaaget gggaagagea aageeagage 180
tgcgctgcct caatacccac aaaagaccat tcccagtata cataagcaca ggatgttttt 240
ctcaagaggg atgtatttat cacttggaca tctgtttata atataaacag acatgtgact 300
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acgtgaaatt gccaatatta ggctggcttt tatctacaaa gaaggagttt catggggttc 420
agcctaacag ttatggaaac tacagtcctt ataaaccatt ggcatggtaa taaacagatc 480
traagtataa aaattttgta attgggccgc tcgag
<210> 1016
<211> 156
<212> DNA
<213> Homo sapiens
<400> 1016
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aaaatcaaca aagttccaat gcagcaagca tatggcaaag cagaggaatt cacagagaaa 120
cagagagaga aactggatag gctggggaga ctcgag
<210> 1017
<211> 173
<212> DNA
<213> Homo sapiens
<400> 1017
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accactttat tttgttgctc aaattgttcc aactttgccc acaagaactc gag
<210> 1018
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<211> 500
<212> DNA
<213> Homo sapiens
<400> 1018
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aaattagaca gggcttacca gcaacatcag atatcaaaga cgttgacagt ttgatgagga 180
tttctggcag aattgagtgt gaaagtccaa acagacatct ctacgatttt gttggaaaca 240
taaggettga tggacatgge accgttccac tgggagcaga tcagattett cttcgaggag 300
ctcagttgag aaatacacag tgggttcatg gaatagttgt ctacactgga catgacacca 360
agetgatgea gaatteaaca agteeaceac ttaagetete aaatgtggaa eggattacaa 420
atgtacaaat titigattita titigtatet taattgeeat gietetigte tgitetgigg 480
                                                                   500
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<210> 1019
<211> 475
<212> DNA
<213> Homo sapiens
<400> 1019
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ctatgtaacc aaaataattg aaggaggtgc agcacataag gatggcaaac ttcagattgg 180
agataaactt ttagcagtga ataacgtatg tttagaagaa gttactcatg aagaagcagt 240
aactgcctta aagaacacat ctgattttgt ttatttgaaa gtggcaaaac ccacaagtat 300
gtatatgaat gatggctatg caccacctga tatcaccaac tcttcttctc agcctgttga 360
taaccatgtt agcccatctt ccttcttggg ccagacacca gcatctccag ccagatactc 420
cccagtttct aaagcagtac ttggagatga tgaaattaca agggaaggac tcgag
<210> 1020
<211> 246
<212> DNA
<213> Homo sapiens
<400> 1020
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gacactagac tcatcagata tatgatttgc aaatattttc tcttattctg tgggttgtct 180
ttttactttc ttgataatgt tccggtcagg ccgaattttt tcccgatccc agagaaggtg 240
tcaaag
<210> 1021
<211> 147
<212> DNA
<213> Homo sapiens
<400> 1021
gaattegegg cegegtegac aatgttgetg aagttgagte atcaaagaat getteagagg 60
acaatcattc tgagaatact ttgtattcaa atgataatgg aagtaattta cagcgtgaag 120
caactgtcat cagtgagctt cctcgag
<210> 1022
<211> 217
<212> DNA
<213> Homo sapiens
gaattcgcgg ccgcgtcgac gcactatata atcaaaaatt actcatccta caaagagcaa 60
ggggaagcta aataattccc aagggaaaag acaattaaca aacaccatcc ctgagaattg 120
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ttgcaaattg ccagatctta aagcagctgc taaaactatg ccctgcaaag taaaggtgaa 180
cacttttaaa acaaatatga tggtgcacat cctcgag
<210> 1023
<211> 236
<212> DNA
<213> Homo sapiens
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aaatgactcc ccagtcgctg ctgcagacga cactgttcct gctgagtctg ctcttcctgg 120
tccaaggtgc ccacggcagg ggccacaggg aagactttcg cttctgcagc cagcggaacc 180
agacacacag gagcagcete cactacaaac ceacaceaga cetgeacete etegag
<210> 1024
<211> 173
<212> DNA
<213> Homo sapiens
<400> 1024
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caatgtactt ccttaaattt agtttaatga ttgtaatggg tgctactctc gag
<210> 1025
<211> 438
<212> DNA
<213> Homo sapiens
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attetttga aaagcagtga aaaaaagcta caagaaacac caactgaagc aaatcacgta 180
caaagactga gacaaatgct ggcttgccct ccacatggtt tactggacag ggtcataaca 240
aatgttacca tcattgttct tctgtgggct gtagtttggt caattactgg cagtgaatgt 300
cttcctggag gaaacctatt tggaattata atcctattct attgtgccat cattggtggt 360
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<210> 1026
<211> 736
<212> DNA
<213> Homo sapiens
<400> 1026
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gatgagaatt gcaataaaag agattttgac acaggttcag aagactaaag acctgctcaa 180
taatgtggcc tctgatgaag ctaatttaga agccaaaatc gaaaagagaa aattagaact 240
ggaaagaaat cggaagcgac tagagactct gcagagtgtc aggccatgtt ttatggatga 300
gtatgagaag actgaggaag aattacaaaa gcagtatgac acttatctgg agaaatttca 360
aaatetgaet tatetggaae aacagettga agaceateat aggatggage aagaaaggtt 420
tgaggaagct aaaaacactc tctgcctgat acagaacaag ctcaaggagg aagagaagcg 480
cctgctcaag agtggaagta acgatgactc ggacatagac atccaggagg acgatgaatc 540
cgacagtgag ttggaagaaa ggcggctgcc caagccacag acagccatgg agatgctcat 600
gcaaggaaga cctggcaaac gcattgtggg cacgatgcaa ggtggagact ccgatgacaa 660
tgaggactcg gaggagagtg aaattgacat ggaagatgat gatgacgagg atgacgattt 720
ggaagacgag ctcgag
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<210> 1027

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<211> 508
<212> DNA
<213> Homo sapiens
<400> 1027
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aaaagatgga ctcagtgatg aaagaggaag agatgactgt ggaacctttg aggacacagg 240
gccccttctc cagtttgact ataaggctgt tgctgatcga ctcctggaaa tgaccagcag 300
gaagaacacg ccccacttca acaggaageg cctctccaaa ctcatcaaga aattccaaga 360
cctttctgaa ggaagcagta tatctcaact cagttttgcg gaggacattt ctgctgatga 420
agatgaccaa atcctcagtc aaggaaagca taagaagaaa ggaaataaac ttttagagaa 480
aactaacttg gaaaaggaaa aactcgag
                                                                   508
<210> 1028
<211> 632
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (166)
<400> 1028
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ctgttagtcc aactgagaag aaagataatt tggaaaacag atcatntacc ttggcagaaa 180
agaaggtgct ggcagaaaaa caaaactctg tggccccatt agagcttaga gatagtaatg 240
aaatagggaa gacacaaatt acacttggat ctagatctac tgaactgaaa gaatcaaaag 300
cegatgetat gecacageae ttetateaaa atgaagaeta caatgaaaga cecaaaatca 360
ttgttggttc tgaaaaggag aaaggtgaag aaaaagaaaa tcaygtatat gtgctttcag 420
aaggaaagaa gcagcaggaa catcagcctt attctgtgaa tgtagccgag tctatgagta 480
gagaatcaga tatetettta ggteattett tgggtgaaae teaateattt teattagtta 540
aagctacate agttactgaa aaatcagaag ccatgctege agaggeteae ccagaaatca 600
gagaagcaaa ggcagtagga acccaactcg ag
                                                                  632
<210> 1029
<211> 131
<212> DNA
<213> Homo sapiens
<400> 1029
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tgtttgtgcc ttttattaac tgccattttc taaaattttt ttcaataaaa ggaaggaaga 120
tgacgctcga g
                                                                   131
<210> 1030
<211> 720
<212> DNA
<213> Homo sapiens
<400> 1030
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cagattcaga aaagtgtctc aaagcagagc acagagttat ttggtgtttg ctgaagacag 120
cetttgtgcc acaatcactt attaaataag cgatcaattt cccattgaac tgaacatgca 180
acatttatca tacattcagt teteattcac acteettaag atttggtcag aatttttatt 240
tctgttcatg tcttctactt ttctactcct gtatgaataa aatattgatt tgattacagt 300
ggctttgact ataatgtggg agccaatttt tgcctcagtc ttcattttta tatttacctt 360
gttattetea ggeatttttt tettetatgt gagagttaaa ateattetgt aattteecce 420
```

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caaaatcata ttggtattet agttggcaat gtettacatt tatgttaagt ttgagggaat 480
tggtagttca agtataagtt aattaaggcc attttatttc taagtgaaca gacttgaaac 540
tccagagcta ctgaagtaaa agttagaatc atttgcattt tcattcagat aggagataat 600
tttgtaaatt ttgatgctat tattttaact ctattagctt aagtaatgtc ataatagaaa 660
acacaagcat ttgaccaaat gagatccatt cagcgactaa ctggcaaggc accgctcgag 720
<210> 1031
<211> 1077
<212> DNA
<213> Homo sapiens
<400> 1031
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taactttttt atatagttgt aaaattccat tatattccat tgccaaagaa acattaagaa 180
ctttgtatag ctgtataaaa agcaactaat tttttaaaga ataaacattt taaagtcagc 240
aaacatactg tgtccttgca gaagttgatg tgctgagcag cagccttatg ggtgggtctt 300
tttttcttag ttttccaggc ttaacatttt tgattttgtt ttttaatgtt tggaacataa 360
atgaagattt gatacattat ttcattatct aaaaaggatt aattattcat gctcattgta 420
agaacttcat titgtagcaa atggcatate acaggatetg tecagataat cgatatitte 480
agtatacaaa tgtaaataat cacagatgag aatgtactta gctgtatttt caaataagta 540
atcttccccc cttttgtagg actttaaaac taggcatcaa tgaacctgtt tttcctatta 600
tgcctggaat ttagtcatga taccttgact cattccatca tatttcaaga ggattcagag 660
tgctagaaat tattttggta gcctgtaaca cacggcaaca ctggtccttg ggcctatgat 720
gacccacaga tgactcagta tagagttcat tgctaattat aaattactag tgaatctttt 780
tgatatttta agetetagtg ggaaaaatet ggeeactttt gtgtttttat gaaggeeatg 840
gaataaaagg atccaaagat ttaaatattt ttatctaata ttttgattgt tttcttaact 900
ttctccttaa aacattcagt agtgataaag atatagaaac tgcactgtag gagaattgga 960
atatttaagg ctggttgaca ttttttattt tcattttata tcttttgtat agctctacaa 1020
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<210> 1032
<211> 802
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (770)
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ccttttagag agactgaaca aacagcggga agcaggtttt ctctgtgact gtaccatagt 180
gattggggaa ttccagttta aagctcatag gaatgtgctg gcctccttta gtgagaattt 240
tggtgcgatc tacagaagca cttctgagaa caatgtcttt cttgatcaga gtcaggtgaa 300
ggctgatgga tttcagaaac tgttggagtt tatatacaca ggaactttaa atcttgacag 360
ttggaatgtt aaagaaattc atcaggctgc tgactatctc aaagtggaag aggtggtcac 420
taaatgcaaa ataaagatgg aagattttgc ttttattgct aatccttctt ctacagagat 480
atctagtatt actggaaaca ttgaattgaa tcaacagact tgtcttctta ctctgcgaga 540
ttataataat cgagagaaat cagaagtatc tacagatttg attcaggcaa atcctaaaca 600
aggcgcgtta gcgaaaaagt catctcaaac gaaaaagaag aagaaggctt tcaactcccc 660
gaaaacaggg cagaataaaa cagtgcaata tcccagtgac atcttagaga atgcatctgt 720
tgaattatte etagatgeaa ataaaetgee cacacetgta gtagaacaan ttgeacaaat 780
aaatgataat tcagaactcg ag
<210> 1033
<211> 442
<212> DNA
<213> Homo sapiens
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<400> 1033
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ggctgagaaa aaagaattac aacataaaat agatgaaatg gaagaaaaag aacaggagct 120
ccaggcaaaa atagaagctt tgcaagctga taatgatttc accaatgaaa ggctaacagc 180
tttacaagta cggttagaac atcttcagga gaaaactctt aaagaatgca gcagcttggg 240
gatacaagtt gatgacttct tacctaaaat aaatgggagc acagaaaaag agaagctgat 300
cgtcgaaggg catctaacca aagcggtaga agaaacaaag ctttcaaaag aaaatcagac 360
aagagcaaaa gaatetgatt ttteagatae tetgagteea agcaaggaaa aaageagtga 420
cgacactaca gacgcactcg ag
<210> 1034
<211> 219
<212> DNA
<213> Homo sapiens
<400> 1034
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gagaggaggt taaaggagat aaaagtaagt atattttttg agaacaaaat agtaacaata 120
gtgctgataa tgctgtcatt atttatattt tgcacactgt gtgtccagct ctgtattata 180
tttattaatg catccaaccc ttactactac cctctcgag
                                                                   219
<210> 1035
<211> 118
<212> DNA
<213> Homo sapiens
<400> 1035
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aggtgttttt tggtgttttt gtttttgttt ttgttttctt tccaaagctc acctcgag
<210> 1036
<211> 1259
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (285)
<220>
<221> unsure
<222> (603)
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<221> unsure
<222> (619)
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<221> unsure
<222> (645)
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<221> unsure
<222> (675)
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<221> unsure
<222> (707)
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<221> unsure
<222> (737)
<400> 1036
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agtactttga aaatgactte gaaatttete ttggtgteet teataettge tgeaetgagt 180
ctttcaacca ccttttctct ccaaccagac cagcaaaagg ttctactagt ttcttttgat 240
ggattccgtt gggattactt atataaagtt ccaacgcccc atttncatta tattatgaaa 300
tatggtgttc acgtgaagca agttactaat gtttttatta caaaaaccta ccctaaccat 360
tatactttgg taactggcct ctttgcagag aatcatggga ttgttgcaaa tgatatgttt 420
gatectatte ggaacaaate ttteteettg gateacatga atatttatga ttecaagttt 480
tgggaagaag cgacaccaat atggatcaca aaccagagge aggacataet agtggtgcag 540
ccatgtggcc cggaacagat gtaaaataca taagcgcttt cctactcatt acatgcctta 600
cantgagtca gtttcattng aagatagagt tgccaaatta ttgantggtt tacgtcaaag 660
ageceataaa tettngtett etetattggg agacetgatg acatggneae catttgggae 720
ctgacagtcc getcatnggg cetgtcattt cagatattga caagaagtta ggatatetca 780
tacaaatgct gaaaaaggca aagttgtgga acactctgaa cctaatcatc acaagtgatc 840
atggaatgac gcagtgctct gaggaaaggt taatagaact tgaccagtac ctggataaag 900
accactatac cotgattgat caatotocag tagcagocat ottgocaaaa gaaggtaaat 960
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aagacgttcc agaaaggtgg cattacaaat acaacagtcg aattcaacca atcatagcag 1080
tggctgatga agggtggcac attttacaga ataagtcaga tgactttctg ttaggcaacc 1140
acggttacga taatgcgtta gcagatatgc atccaatatt tttagcccat ggtcctgcct 1200
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<210> 1037
<211> 588
<212> DNA
<213> Homo sapiens
<400> 1037
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aacaaaaaag gataatgcat atgaagagag tgtacacaca cacacacaca cagagctctt 120
aaacatatgg aaagatgttc catttcactc ataaaaaaag aagtataaat tatcaggaag 180
agateceata aagagatage tttgeeeett etetggggge aaagatgaet aagtttgata 240
ccaatttgtt gatgaaggtt tggggaaaca aacaagacat tttgctgatg agagtgaaaa 300
gggacacagc ctccccagaa agcaatttgg taacatcttt gcaaattgta agcacacata 360
teetteaate cageaattet attetgagat tttatgetae agatattttt ttatgtgtet 420
gaaataacet acatgcaagg caattcatgg acgtgttgtt tgtcatagca aaggattggg 480
ggaaaatgta aatgcccagt gattatatga actggtgctc gccatataaa ggaaagacag 540
cagaagtaca aagaacacag cagcatatct atcaggaatg agctcgag
<210> 1038
<211> 951
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (160)
<220>
<221> unsure
<222> (286)
<220>
<221> unsure
<222> (438)
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<220>
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<222> (835)
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taacaggtaa agaaatcaag acattaaaga ttctggatat tagtcctttg tcagatgagt 120
aggttgcgaa aattttctcc cattttgtag gttgcctgtn cactctgatg gtagtttctt 180
ttgctgtgca gaagetettt agtttaatta gattecattt gtcaatttgg gettttgttg 240
ccattgcttt tggtgtttta gacatgaagt ccttgcccat gcatangtcc tgaatggtaa 300
tgcctaggtt ttcttctagg gtttttatgg ttttaggtct aacgtttaag tctttaatcc 360
atcttgaatt aatttttgta taaggtgtaa ggaagggatc cagtttcagc tttctacata 420
tggctagcca gttttccntc gagattgcag tgagccgaga ttgtgccact gcactctagc 480
ctaggtgaca gagtgagact ccatctcaaa agaaaataaa ataaaaaata aatcaagagg 540
aggcagaaag gggatetgea ggagaggaaa aaaggcagea eteecaaaag catggatate 600
attatatttg tgaatttttg taaactgtgt gtatacgtgc acttacaaat aactttaaaa 660
atgtaaataa tgaatataaa cagagagag cattatagat cttgacccaa atagccagag 720
tagettetgg teatecacae tggceaetgg tttettgtaa agggtteaeg eagaetttag 780
atgtaattga accatttgga gtagaaagaa atatgaatac tagtctgcaa agacngatat 840
gaattetett ggagaacttg ageetetett tggetggttt ccaaaacaac cagtttettt 900
ccatqtqtqa gggaggaaat tetcatggge tgtgccagga ggaagetega g
<210> 1039
<211> 221
<212> DNA
<213> Homo sapiens
<221> unsure
<222> (163)
<400> 1039
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ggataccatg aaccataatt ggtaaattat ccaaaaatca atcatattta gctaaggaaa 120
gtggtgcaca tgtgtgtgca tgtgtgtgtg tatctgtgtg ttntataatg ggaaattcac 180
tttaaactaa tgaaagaatg atttgaaact ctgaactcga g
<210> 1040
<211> 373
<212> DNA
<213> Homo sapiens
<400> 1040
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ttggttcctt gtcacaagcg caaatctgtc caaggctgcc tggggagcat tggagaagaa 120
tggcaccag ctgatgatcc gctcctacga gctcggggtc cttttcctcc cttcagcatt 180
tggtctagac agtttcaaag tgaaacagaa gttcttcgct ggcagccagg agccaatggc 240
cacctttect gtgccatatg atttgcctcc agaactgtat ggaagtaaag atcggccatg 300
gatatggaac attecttatg teaaageace ggatacgeat gggaacatgt gggtgeeete 360
cgtgaatctc gag
<210> 1041
<211> 755
<212> DNA
<213> Homo sapiens
<400> .1041
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tagacccagc gatcaacttg tttttcctaa aaatgaaagg tgaactggaa cagactaaag 120
acaaactgga acaagcccaa aatgaactga gtgcctggaa gtttacgcct gatagccaaa 180
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cagggaaaaa gttaatggcg aagtgtcgaa tgcttatcca ggagaatcaa gagcttggaa 240
ggcagctgtc ccagggacqt attgcacaac ttgaagcaga gttggcttta cagaagaaat 300
acagtgagga gettaaaage agteaggatg aactgaatga etteateate eagettgatg 360
aagaagtaga gggtatgcag agtaccattc tagttctgca gcagcagctg aaggagacac 420
gccagcagtt ggctcagtac cagcagcagc agtctcaggc ctctgcccca agtaccagca 480
ggactacage ttctgaacct gtagaacagt Cagaggccac aagtaaagac tgcagtcgtc 540
tgacaaacgg accaagtaat ggtagctcct cccgccagag gacgtctggg tctggatttc 600
acagggaggg caacacaacc gaagatgact ttccttcttc tccagggaat ggtaataagt 660
cctccaacag ctcagaggag agaactggca gaggaggtag tggttacgta aatcaactca 720
gtgcggggta tgaaagtgta gactctcatc tcgag
<210> 1042
<211> 219
<212> DNA
<213> Homo sapiens
<400> 1042
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tttccaggtt atccaaatat gaaagtcagt tctaccaggt ctcaaaacta cggaactaat 120
gttacatgtc agaaagtctt acaaatgagt acttatgtta tgctagtttt tcttctcttt 180
tectatttt taaagaacaa agacattegg etactegag
<210> 1043
<211> 224
<212> DNA
<213> Homo sapiens
<400> 1043
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tttaatccgg ttaaaaatca tcagtgtcat tatcatcatc atcatcacca tcataagtat 120
taatataata ataataagta atagtaacta gtaacaacaa taaaaaggaa atcagcggaa 180
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                                                                   224
<210> 1044
<211> 110
<212> DNA
<213> Homo sapiens
<400> 1044
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catctaagct ggggcacagt ggcatgacca tgcctcactc caacctcgag
<210> 1045
<211> 216
<212> DNA
<213> Homo sapiens
<400> 1045
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tgaatctgta gatcactttg gataatattg acctcttaat gatattaagt attctaatac 120
attaacatgg gacatatttc catttattta tgtcttttaa attttctttt ggcaatgttt 180
tgtatttttc attgcacaag tctttcacct ctcgag
<210> 1046
<211> 417
<212> DNA
<213> Homo sapiens
<400> 1046
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ttactcgtat tttggacaat cttatggaga tgaagtcaaa ccccgaaact gatgactata 120
gatattttga tcccaaaatg ctgcggggca atgacagctc agttcccaga aataaaaatc 180
cattccaaga ggccattgtt tttgtggtgg gaggaggcaa ctacattgaa tatcagaatc 240
ttgttgacta cataaagggg aaacaaggca aacacatttt atatggctgc agtgagcttt 300
ttaatgctac acagttcata aaacagttgt cacaacttgg acaaaagtaa cacagaagaa 360
cettactatg ataatetact tggaatgtgg ataaatgtaa aaagaagaaa aetegag
<210> 1047
<211> 163
<212> DNA
<213> Homo sapiens
<400> 1047
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tatttettt egatettigt gagtttetet tetgeceate cettaaatgt tgttteetag 120
aactotgtoo ctaaccattt totattttoa cocccaacto gag
                                                                  163
<210> 1048
<211> 469
<212> DNA
<213> Homo sapiens
<400> 1048
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cctcagattc aagcaaccat ggactgaaaa tgtaggcagg actgtgatgg ttacatctat 120
actgaacgtg cacacaatgt tttcttgtca ttatctcctg aactagacag tggaaccact 180
gtttaaactg catttacatt gcactgggca gtagaagtaa cctagggatg atttagagtc 240
tacaggagga tgtgactggt cacatgcaaa ccatgtgtcg atgtatatga gatttgagca 300
cctgtggatt ttggtatcct gggcggtgga ggctctggag ccaatctcta atggatacca 360
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                           9.35
<210> 1049
<211> 203
<212> DNA
<213> Homo sapiens
<400> 1049
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attectetet gecageegtt ttgegtetet tggaaageea aaeggtgaee atgettetta 120
atttatgeet teagggterg getteteett tetecettee ttteetgtea caccatgeat 180
acatacatac aaatacactc gag
<210> 1050
<211> 691
<212> DNA
<213> Homo sapiens
<400> 1050
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acateactgt tgatgttgat gateceaetg gaaggtette aggggeagta acaegeatgg 120
agetyteate tectatgaty teaatgeett ettetygata etteetyagy gaeetyeety 180
aggetgtttt acagttaaat tttaaaaaat ttacattgaa ggagcacact ccaaaatcaa 240
gataaaaagt ataatatagt aaatagataa accagtaaca tagtcattta ttatcattgc 300
taaataatat gtatataatt gcatgtgtta tactcttata caactggcag tgcagtaggt 360
ttgtttgcac cagcagcace acaaacatga gtaatgeete gtgetgetgt tteacgaagg 420
cgatgatgtc acggtgacag gaagttttag ctccattata attttatggg aacaccattg 480
tatatagtgt ggtgttcctt gttgaccaaa acatcattat gtggtgcatg actgtatcta 540
tatttaatat ataatatgta aaatattata agtatettta eagtagaate caacetettt 600
ggcgaggcat cccaggcatt tcacagttgg atecctgect acctgttgag cettgtette 660
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caccatgttc ctcacccaca ccatactcga g
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<210> 1051
<211> 182
<212> DNA
<213> Homo sapiens
<400> 1051
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tgtgattgaa gatctgctcc ctgtcctagc gttgtaatag tatattagta ggctaaaaga 120
taacagccat ttcccgtata gcatttgtcc atatgtataa tctcttcagc tacatcctcg 180
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<210> 1052
<211> 184
<212> DNA
<213> Homo sapiens
<400> 1052
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aatgtacaat tcagtggtat ttattacatt tacacattgt gcaaccatca ctactatttt 120
caaaactttt ttatcacccc aatcagcatc tttgtaccct ttaagtaata actccggtct 180
<210> 1053
<211> 131
<212> DNA
<213> Homo sapiens
<400> 1053
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cttcagcana cttcytgaca tcgagctcat ctgccaggag catgaaagtg aaaacagccc 120
tattactcga g
<210> 1054
<211> 341
<212> DNA
<213> Homo sapiens
<400> 1054
gaattcggcc aaagaggcct agtgggcggt ttatatcttg tggagtaatg ggtgtttttg 60
aagtetgtee tgggtaetge acattaaaag gaatateatt ttetgaaaca ttgetatttt 120
ccacaccaga aatcatatcc tettgetggt ccatgtetga agacettaca egagaaagte 180
ttaatgtaag tttagtagag tccttggatg gagaactaat tatatcatac attgccgctt 240
teteactetg etettttea teettgeeta attteatttt ettetgette ttttgttte 300
tttctggaga atctagcaag atatctggtg gaactctcga g
<210> 1055
<211> 130
<212> DNA
<213> Homo sapiens
<400> 1055
gaatteggee aaagaggeet agagetteee taetttteag gettaaattt atettette 60
ttctaaaagt atgtttttat cttctaattt ccctatcttc tctattcttt tcttcgcctt 120
cccgctcgag
                                                                   130
<210> 1056
<211> 131
<212> DNA
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```
<213> Homo sapiens
<400> 1056
gaattcggcc aaagaggtct aggtagaata gaaacttcag catctaccaa gtcaagaaga 60
taacttggaa aacaattctg actgacattc caatttaatc acacttaatg aattctgcac 120
<210> 1057
<211> 306
<212> DNA
<213> Homo sapiens
<400> 1057
gaartegeca aagaggeeta taggeetett tggeegaatt eggeeaaaga ggeetaggta 60
agatetgage etgecaagge eccaggggat atggggaace cagcagagat gagtgcacaa 120
gaagaggtg ggggcaggga ccagacagac ctggatttca acctcgcagg agctgctcga 180
ccctgggcaa tttgcttgcc ccttcctggc ttcaatttcc tatgtataaa atgaggagaa 240
taatgtcaaa tacccatatt ctgagaaaaa ccaaatactt ggattgaatt ctagacctgc 300
ctcgag
<210> 1058
<211> 141
<212> DNA
<213> Homo sapiens
<400> 1058
gaattcggcc aaagaggcct gcccttctct cacaatcata gagttttcta gcggtcacag 60
ggcatatcac aacagatgat gcataaagta gctatgacaa tccagctact ttctgttaag 120
ctagatatca tagttgcaaa g
<210> 1059
<211> 626
<212> DNA
<213> Homo sapiens
<400> 1059
gaattcggcc aaagaggcct agtagcgatg gcggctgggc cgagtgggtg tctggtgccg 60
gcgtttgggc tacggttgtt gttggcgact gtgcttcaag cggtqtctgc ttttggggca 120
gagttttcat cggaggcatg cagaggtta ggcttttcta gcaacttgct ttgcagctct 180
tgtgatette teggacagtt caacetgett cagetggate etgattgeag aggatgetgt 240
caggaggaag cacaatttga aaccaaaaag ctgtatgcag gagctattct tgaagtttgt 300
ggatgaaaat tgggaaggtt ccctcaagtc caagcttttg ttaggagtga taaacccaaa 360
ctgttcagag gactgcaaat caagtatgtc cgtggttcag accetgtatt aaagettttg 420
gacgacaatg ggaacattgc tgaagaactg agcattctca aatggaacac agacagtgta 480
gaagaattcc tgagtgaaaa gttggaacgc atataaatct tgcttaaatt ttgtcctatc 540
cttttgttac cttatcaaat gaaatattac agcacctaga aaataattta gttttgcttg 600
cttccattga tcagtcacca ctcgag
                                                                   626
<210> 1060
<211> 228
<212> DNA
<213> Homo sapiens
<400> 1060
gaatteggee aaagaggeet agetgttttt tttgttgttg ttgttgtgtt tttaatttga 60
taacttcagg aacttgtatc tgtgcgtaga gcagtgatcc agacagctgt acttttatga 120
acagtcactc tgactgccaa attagtttgt agtgcaaatc ttgagtgaga acagcacctg 180
ttetcaatgt ggatgaaaat ggcaaatgtt atgggaagca ttetegag
<210> 1061
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<211> 278
<212> DNA
<213> Homo sapiens
<400> 1061
gaattcggcc aaagaggcct aagaattcta gaccgcctcg agacgccacg cccagccggg 60
aatteteatt tittatgagt attacaggtg aaatateeag acacetaaca gggcagaaga 120
ctcattttta tcaaagaaat aaaaataaat ttttgttttt ttggaaatac tgtgtaaaga 180
ttcattgtaa aattttcctc agcatgttaa cagagaaggt gttcactctc ctctgtgcat 240
tttttttcca gtttgaattg acaaggagcc gactcgag
<210> 1062
<211> 168
<212> DNA
<213> Homo sapiens
<400> 1062
gaatteggee aaagaggeet aaagatgetg gggagaaaga acatgteact aagagttete 60
tgttccattt tctttaccat ttctttttgg aatctggctg cttttccttg ttgtggctgt 120
gacactagta teactetetg teccateate aacaccatee aactegag
<210> 1063
<211> 279
<212> DNA
<213> Homo sapiens
<400> 1063
gaattegegg cegegtegae egtegattga attetagace tteetetege etttteettt 60
ettetteetg etgtegeega agaattteet eetgttgtet teggagttet teetgeetet 120°
tregetette etetteeegt tttgeeetea tttetgeete tettetetet tgetetaget 180
ttgcagcttt ggccttctct agctgctgaa gctgttccag ggcagggcct ggtgtcgtgg 240
tgtccagagg aagatcccat acactaccac cttctcgag
<210> 1064
<211> 347
<212> DNA
<213> Homo sapiens
<400> 1064
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gtatctattc ttaatcatat ttgttgtatc tttgaatcca aaaaggttct ggttagacca 120
atagtgaaga attacgttga attaagtaat agttttcaga agtggataag atgttaatgt 180
taatggtgct atccaattgc tcattttcat cttggaaagt ttccctattt ttattcagag 240
gaattactct gatatgttta cctatagtcc ttcccgatcc tgatatactg tctaggacag 300
tatatatgtc tatgttttcc tgttcatcag tacgtagcag tctcgag
<210> 1065
<211> 252
<212> DNA
<213> Homo sapiens
<400> 1065
gaattcgcgg ccgcgtcgac ctaaaccgtc aaatttcaga acataaaaat aaatttccat 60
ttacagattt cccccttcca gttccaaaag tagttattct agagtaagta ttcaacacat 120
aaaatttago tgaatcaaat aaaaaacaat caccaaatgo aaatatcaat tocaaagcac 180
agattttata tatactgctt tcatatttcc cttttgctgc ttttatctag aaaagaagca 240
aaaggactcg ag
<210> 1066
<211> 221
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<212> DNA
<213> Homo sapiens
<400> 1066
gaattegegg cegegtegae attatttte aggitgtget tittecacaa aatattggte 60
taaaaagata atgcaggttt tgcagatact ctagcatggc agaaatcaaa cttcaacatt 120
cotttggcac attttgtttt toottaattt ttattgtgtc ttatctgtgt attttgtata 180
tgggggaagg agagagcact agcaagcatg agcgtctcga q
<210> 1067
<211> 203
<212> DNA
<213> Homo sapiens
<400> 1067
gaattcgcgg ccgcgtcgac aaacaattca ttctaattgt tgcctatgtt atcaagaagt 60
gractattgt gagtaaattt cagaatttag gactgtgtga attctgatcc ttacccttga 120
tgatgtattt tecettaget atateaetae etttgtttge taceagtgtt ataatgaggg 180
ttgtaggaat tcacggactc gag
<210> 1068
<211> 204
<212> DNA
<213> Homo sapiers
<400> 1068
gaattegegg eegegtegae acaggttaag agagtagate aactgaagaa aaatataatt 60
aaaagaactg ctacgagttc cttaattttt atgacttgga agtttttctt gtttgttttt 120
gagacagggt etttettigt cacceagget geagtgeagt ggeatgatet eageteactg 180
cagceteaac gteettgget egag
<210> 1069
<211> 244
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (26)
<400> 1069
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ttttgtgagc agateteagg ggaggtggag gaaaggacaa agggaaagge tetgagtaat 120
ttcttcaaaa tctgtattct ttgtattaaa aatgttcatt cctattaatt ccagattgtt 180
tgcaatgtge etactttgcc actggcaaat tgtgacatct ctgaagtegg cettcatggt 240
cgag
<210> 1070
<211> 217
<212> DNA
<213> Homo sapiens
<400> 1070
gaattegegg cegegtegae gtgteatttt tttettatea agaagttett ttttaaaaat 60
catccattte ttgccccatt atggtgatgt cttttcttaa atccttgaat ttaaagggca 120
aacaatataa ttataatatt tgtaatagee ttttaataga teattgettg etaattetet 180
catttgcatc attaatgaat ctgtttttac taaccag
<210> 1071
<211> 127
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<212> DNA
<213> Homo sapiens
<400> 1071
gaattcgcgg ccgcgtcgac attgaattct agacctgcca cacctccagt ttaatctttc 60
accttcaaat gatgtcccca ctcagtctat ttctctcttt ctgcatattt ctcaccacgt 120
cctcgag
<210> 1072
<211> 755
<212> DNA
<213> Homo sapiens
<400> 1072
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tacgtttttc agttgggcgt ggtggctcac gcctgtaatc ccagcacttt gggaggccaa 120
ggcgggtcga tcaagaggtc aggagtttga gaccagcctg atcaacatgg tgaaacccca 180
tetetagaaa aatacaaaaa ttacecaggt gtggtggege gtgeetgtaa teecagetae 240
tgaggaaget gaaggaggag aategettga acceaggagg eggagggtge agtgageega 300
gattgcgcca ttacgctcca gcctgggcaa tagagcgaga ctccatccca aaaaaaaaa 360
aaaagacaag tttttgtgaa tatggcttaa tatcacaaac aagaatacca aagaatctat 420
caaaatgtta ccacattgat attatggcaa aggcattaac cagctctagg atttgtaatc 480
aaccagetet aaagttiita tiitacagat aaggicaaaa cagiggitta gagagacgaa 540
gtaacttcct caaggttaca gttagtaaat atcccagtta ggattcaaag caagcttttt 600
ttgctttaga attetteece aggteactge etettecate aactteaact atttataaat 660
teteceaagt teeceaaggg agetagatet gaatgatgta aagageagaa acataggaet 720
gactgaatga ttctcatttt tttgactctt aaagt
                                                                   755
<210> 1073
<211> 580
<212> DNA
<213> Homo sapiens
<400> 1073
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cateteaaaa aaaaataaaa ataaaaaata aetgatteaa teettgeaac ageeetgtga 120
tgcaagtatt cttatcccta ttttacagat tgggaaatga ggcacagaga ggttaaatgc 180
cttaaccagg gtcacaggtt acatcattgg taaatggcag aaccaggact tgagaccagg 240
cagtetaget etectgeeca tactectaac catcacetta cacageetee ecceagettt 300
tattacattc accagattat ttggtgaagg aaatcccaat tttgttatgg cgttggtaac 360
tgtcctatga actatatagt taatcttaat tccaaaagca agaagtctgt tcaagcataa 420
acticatatice ettgaateat tittetagag gaacatggaa tgtggtgetg atgggatgtt 480
gctgtgtctg ttgcaaccca atattttaaa caaggtaaaa ggttatatat gagcagaata 540
agagettaac tecaagtage taaggagaga aaccetegag
<210> 1074
<211> 322
<212> DNA
<213> Homo sapiens
<400> 1074
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gagtaatcac aggctggagg atatggaggg taatcacagg ctggaggaca cggagagaaa 120
tcacaggccg gaggacacgg agagaaatca caggccggag gacacggagg gtaatcacag 180
gccggaggac acggagggta atcacaggcc ggaggacacg gagggtaatc acaggccgga 240
ggacacggag agaaatcaca ggccggagga cacggagggt aatcacaggc tggaggatat 300
gcagagtaac cacagactcg ag
<210> 1075
<211> 399
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275

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<212> DNA
<213> Homo sapiens
<400> 1075
gtttatgtca tggttggtgc agatgtcccg ttttcttctt gtttacgaga agttgaaaat 60
ccacagaatc aattgagatg tagtcaagaa atggagcctg taataacatg tgataaaaaa 120
tttcgtactc aattttacat tgactggtgc aaaatttcat tggttgataa aacaaagcaa 180
gtgtccacct atcaggaagt gattcgtgga gaggggattt tacctgatgg tggagaatac 240
aaaccccctt ctgattcttt gaaaagcaga gactattaca cggattteet aattacactg 300
gctgtgccct cggcagtggc actggtcctt tttctaatac ttgcttatat catgtgctgc 360
cgacgggaag gcgtcatcca actggtccac cacctcgag
<210> 1076
<211> 219
<212> DNA
<213> Homo sapiens
<400> 1076
gaattegegg cegegtegae egaaatgeae etttggettg catttgtgge teagtgtatt 60
ctattggaca gtcagtgcat tatatactct gacttcagtt tggcatctca atttttgaca 120
ataacatatg aggggaaatc agaagccttt ctaaaagcta cagtttggct gggcgtgcag 180
geteatgeet gtaateecaa eaetttagga gagetegag
<210> 1077
<211> 169
<212> DNA
<213> Homo sapiens
<400> 1077
gaattegegg eegegtegae egattaagea gttatgeatt aetggggaaa etaeetttta 60
gagatttaga aaagetttag aatttagtaa atcaaataaa aataggtata caatatttta 120
gacatagggt ttcaacatgt tacatggtgt gataatggag tgcctcgag
<210> 1078
<211> 152
<212> DNA
<213> Homo sapiens
<400> 1078
gaattegegg cegegtegac cacagecagt agatgattac ttegtgggaa ggatteetee 60
tetteetegt ceteageece etetaetetg eteceegggg geeaggaeeg ggtggagggg 120
gctgtgggaa ggattcctcc tcttcctcgt cc
<210> 1079
<211> 235
<212> DNA
<213> Homo sapiens
<400> 1079
gaattegegg cegegtegae cetgeettgg geaaaatttg tgtgtgtggt tatteacaga 60
ggaggagcca gataggtagc tcagtccata aactatggaa ggtagcagta tcctttactg 120
cagtggcttt caaatttgac atgcaccaaa atctcctgga gagcttgtta aaacatagaa 180
agcagggcct catccccac gtttttgatt cagtaggtct gggttggggc tcgag
<210> 1080
<211> 202
<212> DNA
<213> Homo sapiens
<400> 1080
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gaattegegg eegegtegae eeacatetet ttgetttagt etatggtaag getatteaaa 60
ttotacattt teattaggee tteetatget actaaaggga tttaattaeg tgtteeteat 120
tetttttatt gaactgtgta tgtttttcat agtttetttg tattatgatt gtgtttettt 180
cttctacctc cgaaagctcg ag
<210> 1081
<211> 231
<212> DNA
<213> Homo sapiens
<400> 1081
ggtctgcctg cacttagaga accttacaga accatgtggc tggtgggtga gaatgactcc 60
cagcataaac ggccctgcag tgcatgtgcg gttctgagcc tcatcctttc cacaagtgca 120
teetggagag ceageacage ggeeceactg ggeecetget eccetgteet ggeetegget 180
tettetgtaa cateceettt tettteatat aaacateaac geagaetega g
<210> 1082
<211> 407
<212> DNA
<213> Homo sapiens
<400> 1082
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tggcaaaaac cacaccaact ggtggccttc caagggaccc ccaagaactc atggttgata 120
accetttgaa teageteteg actetageag ggeagttgte eagtetgeea eeegaaaace 180
aaaaccetge atcccctgat gtagttccct gccctgatga aaagcettte atgattcage 240
agccctctac ccaagcagta gtttctgccg tatcagcaag tattcctcag agctcctctc 300
ccacaageec agaacetegg ccateceata gteaaaggaa etatagteea gtggeaggte 360
caagcagtga gccaagtgcc cacacgagca eteccagega eetegag
<210> 1083
<211> 449
<212> DNA
<213> Homo sapiens
<400> 1083
getetgagtt etetttattt tggtggtete agtetetate ttteaegttg tgaattttte 60
tcaaatatat ggtgatccta tggatctgtt catgttttaa gagtgaggca tccaaaagct 120
gattggaagt tgtgtgtgcc aactggtgag cttttccact agggtcacca ggtgggcacc 180
tggactcatc attggagaac actgcctgtc agtatttgca cgtgttttct ctggggctca 240
ttctgtttct tgagagatat tcccactact ctccttcctg ggaaacgggc atacacaggg 300
cttttagcct atgctgagta ctcatgtggt ttcaaaaatg gtgtcccatc tgggcagaag 360
teeceatgag eacttggett gaetggeaaa ggacaeettt tgeecettee teeagaeata 420
cccagctctg agcttggaca atgctcgag
<210> 1084
<211> 216
<212> DNA
<213> Homo sapiens
<400> 1084
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tgagtataac ttttcacagt gacaaaaatg attgagatgt actttactgg gtttttttgtt 120
gttgttttgt tttttgagac agtctctttc tgtagcccag gctggaatgc agtggcacga 180
tctcgactca ctgcaacctc tccatccaga ctcgag
<210> 1085
<211> 447
<212> DNA
<213> Homo sapiens
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<400> 1085
gaattegegg eegegtegae ggagatgttt acatttttgt tgaegtgtat ttttetaeee 60
ctcctaagag ggcacagtct cttcacctgt gaaccaatta ctgttcccaq atgtatqaaa 120
atggcctaca acatgacgtt tttccctaat ctgatgggtc attatgacca gagtattgcc 180
gcggtggaaa tggagcattt tetteetete gcaaatetgg aatgtteace aaacattgaa 240
actttectet gcaaagcatt tgtaccaace tgcatagaac aaattcatgt ggttecacet 300
tgtcgtaaac tttgtgagaa agtatattct gattgcaaaa aattaattga cacttttggg 360
atccgatggc ctgaggagct tgaatgtgac agattacaat actgtgatga gactgttcct 420
gtaacttttg atccacacac gctcgag
<210> 1086
<211> 263
<212> DNA
<213> Homo sapiens
<400> 1086
gaattegegg eegegtegae aggatgetea caactgtatt eetgagetgg acagtgagae 60
agccatgttt tetgtetaeg atggacatgg aggtaaettt aacagateat attggtaaca 120
ttctaggacc ccaattccag acgttccagg gcaagaacag gtccctttgt tcatttactt 180
tecagggtet ggeeeteatt ateattteet gegtggtget gtttttetgt attetqteat 240
tetttttcc cagcaggete gag
<210> 1087
<211> 428
<212> DNA
<213> Homo sapiens
<400> 1087
gaattcgcgg ccgcgtcgac ccaaaaacca aaaacaaaaa caaaacaata acactgaata 60
aagteataat ggtaaataac attgegttte tgettggttt tagegeetge ttegeggttt 120
cctgcttgct gattgcgtac ggagcaagta aaccaaacgg tgagtgtcct ctccctccat 180
ettetgteag ggaeegggga gagagtgeee tgagetgete eeaggeeeae etgetettgg 240
acactgteet gggeetgetg etecetgete aagttagagg ggacacetgt taegeeteta 300
ctcagttact tatctcaaat agacggcgag atcagagagc agecacccca gacaggagct 360
tecagggtat gagcaactte cateteatea ecaaaceaag ceagteeete actgatgaca 420
acctcgag
<210> 1088
<211> 226
<212> DNA
<213> Homo sapiens
<400> 1088
gaattegegg eegegtegae gtagaaagea tetgtagaet teegeagaaa geateegtag 60
actteegtag aaageaetga tgatgttgta taaacagaee ataaggagat tgaageeete 120
catgtattct gtttgccctt ggaatatatg tgcatgtgca tgtgcttgtg tgtttatttt 180
catttgggtt tatgccctat ttttaatttg taggcagcaa ctcgag
<210> 1089
<211> 227
<212> DNA
<213> Homo sapiens
<400> 1089
gaattegegg cegegtegae getgateaac agggtgtegt teaaggaatg ataacaggaa 60
ttcgaggatt atgcaatggt ctgggaccgg ccctctatgg attcattttc tacatattcc 120
atgtggaact taaagaactg ccaataacag gaacagactt gggaacaaac acaagccctc 180
agcaccaett tgaacagaat tecateatee etggeceaae eetegag
<210> 1090
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<211> 102
<212> DNA
<213> Homo sapiens
<400> 1090
gaattcggcc aaagaggcct aatggccaat aatcacaggg gcttttgaaa atacgttcaa 60
cattactaat ttttttaaga gatgaggtct tgcttactcg ag
<210> 1091
<211> 646
<212> DNA
<213> Homo sapiens
<400> 1091
gaattcgcgg ccgcgtcgac atcatgactg ttatttttat ttgcacttgc tggtctttgt 60
agcagcattc agcacaggtg ccaaaaatatg cttcatttgg ggggcagatc tattttgaca 120
gtatttgact acatatagca agagtttgaa atatgttaaa cactagacat cctggttatc 180
aaaaccaatg agcattactt tcatggcagc aagtgtcatg cagttatttt ctgaatttgt 240
caaagaggca gtagtttcta acccctgttc tatagtagtt acaacaattt cacaacctat 300
gtttacagat tetteataaa tacatgeata etgacaetat aateatggga ggtgtaacca 360
tgattagtag gegaggtace taccaetttt tttttttttt eccetggeta ettgagtaga 420
atgcattata ccagatetgg teactiteat tgaaatggtt tetaattite tteccaagtg 480
ctgttgggtt tttttctct taaggaaaac gttgtcactt ttatgttata aacttgaatt 540
tataaagtgc tggtaaatta tttttaatga tttgagtgca tgttttaaac ctctaggacc 600
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<212> DNA
<213> Homo sapiens
<400> 1092
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agaggcggaa gtatttttg gtgtaattct tgaaattttc tgacaggaaa caaataaaga 180
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<210> 1093
<211> 709
<212> DNA
<213> Homo sapiens
<400> 1093
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gtcaggagga tgctgtgcac actgtgtgtg atgaateteg ccagaaagge teetgaggte 120
ccaggttggc acttctccct gcagccattg tagaagatct gctggtcctt gcaggcaaag 180
ctacagecag aatgteegtt tgaaacteet ageteatetg teacegaget teateegaat 240
gigecaegga geitgetete eacticeiee gigeagegge eeigecaeag eeeiceeteg 300
gcacactttg accetttgta ggattggaat tagcaggact eggetattta aagcaccagt 360
ctggggtcgc ctgggcccct gctgacccct tcctccagag cagccagccc agcccgggaa 420
caagaeggae tteeteteee tteggaetea cageetttge agagteaage teeaettgaa 480
geteacteag taatateett teaatgtgtt ttatattgtt ttgaetgeet ttttttgtag 540
aaataaaaat tgaccttaga atttatcgtc agataaactt gtaaagattt gaatattaat 600
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<210> 1094
<211> 770
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (44)
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aactgcaccc acagtettet tecaetgact tectaataaa gataaaacac cagaegtcaa 180
aacctatatg aggcgagtga agcttgacat ttatgccaaa aaaaggtgtc ccctctaggg 240
aaaaaataac tgcctcctta aggactcaag atcattaatc ctcattcatc ccactaatta 300
cettttctac tectatecag teteatgagg gatgatgttt tattatgttc etcetgttgg 360
aggggctaag ccattgtctt ctactcaata aatttttact gagcttctat tatgtatcag 420
gaactgtgcc aggcatggag gctaaaaaca tgtataatta tagtagtaac cttcattgag 480
tactgactat gtgccageta ttttaaatgt attatctttt aaatcctccc aacagcccta 540
ttcaaatagg tactattatc accccactt tacagatgag gaaatcgatg cacagagaaa 600
ttaagcacct tgcttatggt cataagtggt agaagtagaa ctttaaacct actttctct 660
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<211> 774
<212> DNA
<213> Homo sapiens
<400> 1095
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titaatttgt tettatagtt agttaaetta aacetgtgge etaggttage cattaactga 180
artagiticag attatitato tiaucotati gitgogitata giattittagg tittitgitga 240
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gaccaaagta gaaatttgga aaaagtaaaa atgactccta aattacccag caagttgtaa 660
agatacacet tteteageat geatteteat gatageataa eaatgtataa tatatetgat 720
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<210> 1096
<211> 618
<212> DNA
<213> Homo sapiens
<400> 1096
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tgggtgtgtg ttacgcccag aactgctcgg tgtcggggtt ctaaaagaat gcgctggtgt 180
tettggette aagtttetge tittggagaag eagatteagg aagtaggtgt tgettaaaaa 240
taattettgg tttttateta atcagatatt cattgattae etaceaggtg eeagttatag 300
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tcacgttagg tgacctaagc tttgaaggag aaaaacattt tctgggtatg aataatgagt 420
tttgtaatca atteccagtt agaagaattt cagtetetgg gecattgage ttqqcaqtqt 480
tgagatetee catgtgacag aageetggea tetgggeeae caaggeteae tgaetgtgta 540
ccttgcagac tgtagaccca tgtcgtggcg gtaacggggc caaacacagt cattcccatg 600
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618

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<211> 863
<212> DNA
<213> Homo sapiens
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catacttcct cagatgtaac attagaactc aatatttcta acaataacat accagaaaag 180
getggaetgg cacteatetg etgaetaact tgtageetea gtaatatgae ataettgeet 240
ttaacaaatt atctcaaatt aactaacaga ccttcagaaa atggagattc tttttgatgg 300
ggacataatc aaatttaagt ctgagaaata tgcttaacag ttggaactca aattaaatgt 360
actgatttta aagtttagac attaacaagt gatagattag cctcaaaaaa agacaatttg 420
gtaaggttta ggtcttttaa tttggtgctt gttcacaact tgactggtgc ttctttcctt 480
getgtettea cateaageea tggggeeaat tetattttea gtaaatgttt gaeagetttt 540
tacttagtaa cagteteage aettttatta ageatgeaag aetaacaaaa aetttggeaa 600
tgcataagtg taacacagtg acaagagage ttttacaatt aagtetteta atactgcett 660
cacagtgtgg aaattgtgct acatccacca aaagagggcc ccgtctactc aaatatttcc 720
gtactteacc ccaggaacaa actcctttgc atttggattc agattgctct tgaccacaag 780
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tagttateet egitagette ggitetettea igtatgeeaa aaggaacaaa aggagaatta 180
tgaggatatt cagtgtgcca cctacagagg aaactttgtc agagcccaac ttttatgaca 240
cgataagcaa gattcgttta agacaacaac tggaaatgta ttccatttca agaaagtacg 300
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gaaaaagagc aacagaagta attgtttcaa gctcctgatt ctttctacta aatcatgaac 420
agetttaaaa acatttetgt etgeataaaa ttattttaet tgtaactttt eeceaattgt 480
tetgtgeatt gttttgeett tttaaattae ateteeaagt ggeteaaaag geettgaeae 540
agggaacctg cacatatcca ggatatgtgt aaccagcgat ggtgacttga ccttgccaag 600
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gag
<210> 1099
<211> 536
<212> DNA
<213> Homo sapiens
<400> 1099
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agccacgtta cagtttgaat taatcatttt etteaaaagg agteecagaa gtgaacecaa 180
acaaaaagct actateeett tacagttgga aagtagaaga caetggtgat qtaeteaqet 240
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cacatcacag ttttgaaaat gcatcttcat ttattattgc tttgttctcc tgtagtacaa 420
aagggaaaac tgaggttaca catctaggaa tcaaactcat gtcttctaat tcttqaqcta 480
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<210> 1100
<211> 586
<212> DNA
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<213> Homo sapiens
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agttggcgcg gccgagagag gacaagagcg cgcagcaggc gaagctggag ggcgggactc 240
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gagaccacgt cetggaagtg teegggacte gegggacetg tggetgeaga eeeeggeegge 360
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cacgggaggg etgteettgg ggactetagg atggettegt tetggeeegg eteaettetg 480
gagetgtgag acceaagaca aaaggggetg agggatttet cattgacaag agttegtgeg 540
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<211> 228
<212> DNA
<213> Homo sapiens
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gagtgcagtg gcacgatcat ggctgactgc agcctcaacc tcctgggttc aagggatcct 180
cecageteag ecteceaagt agttgggaet acageegeac caetegag
<210> 1102
<211> 905
<212> DNA
<213> Homo sapiens
<400> 1102
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tectecttte teetgtttta tggggaetga tttttggtgt etettetaac agcatacaga 120
tagggggget atttectagg ggegeegate aagaatacag tgcatttega gtagggatgg 180
ttcagttttc cacttcggag ttcagactga caccccacat cgacaatttg gaggtggcaa 240
acagettege agteactaat getttetget eccagtttte gagaggagte tatgetattt 300
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teteetteat cacteecage tteeccaacag atggeacaca tecatttgte atteagatga 420
gacccgacct caaaggagct ctccttagct tgattgaata ctatcaatgg gacaagtttg 480
cataceteta tgacagtgac agaggettat caacactgca agetgtgetg gattetgetg 540
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aaatccagtt tggaggtgca aatgtctctg gatttcagat agtggactat gatgattcgt 840
tggtatctaa atttatagaa agatggtcaa cactggaaga aaaagaatac cctggaactc 900
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<211> 497
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<213> Homo sapiens
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<221> unsure
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atcnaagaga aagaaaaatc ctgaaagagg aaaaaataaa caaccttact cagagaggaa 180
caaagataag aattacttcc agcttttctt cagaaaccat gaaagcaaga gaagagtgga 240
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tgagaagcca agacagaaag atcanttgag atcagcctgg gcaacatggt gaaaccccat 360
ccctacaaaa aaaaaaagtt ttttaattag ctgggtatgg tggtgcacac ctgtggtccc 420
agetgagtgg ceetagagtt tgtaatatac agetaaceca agtecaettt caaataacac 480
tataccactt cctcgag
<210> 1104
<211> 683
<212> DNA
<213> Homo sapiens
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cgcgcgtcgc ctcaaccccc ggcgttctgg gcgctcgcta cccagtggtc aaccggccgg 240
acctteggae eegegaggtt tetgettagt aacteecaat eetgaaaaac tecaaccetg 300
tggagttece ccataatcaa gaacgeeeet cageeegega aetgeegeeg aaagaetete 360
accecagtes tgaggecece tgggggecege gtggeaegee eegactetge ttggagaeec 480
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cgacccetga gyggccgccc tgcgccgage tcggtgcacc caccttgcgc cgcagaagta 600
tetgggaegt geageeeegg ggeegegegg geteggegeg egetggggag aagttggeag 660
aageegeeeg teaacacete gag
<210> 1105
<211> 970
<212> DNA
<213> Homo sapiens
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ttccaggete caageggeeg etgeegeege egeegeegee gggeegaagg tgeegeegag 120
cagtetecag egeaggette ettaceggge gaccacaatg teegagttte teetegeett 180
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<211> 120
<212> DNA
<213> Homo sapiens
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<210> 1107
<211> 541
<212> DNA
<213> Homo sapiens
<400> 1107
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taaaaccttt geettetgea egaatttgae tgaacteeat eteatgteea acteaateea 480
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<210> 1108
<211> 950
<212> DNA
<213> Homo sapiens
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<221> unsure
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agaacatcac tatataccag atggtgtatt tagtcaacct ggggcattag gaaatacccc 300
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<211> 627
<212> DNA
<213> Homo sapiens
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ggagtttaag agttaaatat tatttgateg tggetgteaa atttagtgaa eaacatagat 300
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ggattteatt etgtggtttt ttaaatgttt egtetttgat getaecatee agggettett 540
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<211> 844
<212> DNA
<213> Homo sapiens
<400> 1110
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agaccetect gagacgttet gtgcaatggg caatcectae atgtgcaata atgagtgtga 360
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tecetecaca tittggcagt etgecaettg gaaggagtat eccaageete tecaggitaa 480
cateactety tettggagea aaaccattga getaacagae aacatagtta ttacetttga 540
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geoctateag tattatgeca cagactgett agatgetttt cacatggate etaaateegt 660
gaaggattta tcacagcata cggtcttaga aatcatttgc acagaaqagt actcaacagg 720
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caaa
<210> 1111
<211> 832
<212> DNA
<213> Homo sapiens
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acaaaaaaga agaaaaagaa gaagaaaaaa aatcatgaaa accatccagc caaaaatgca 180
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ccagccacat ggccagaaga tgacatette cgacaageta ttagtettet gattgtaaca 180
aatgttggtg cttacateet ttatttette tgtgcaacae tgagetatta ttttgtette 240
gatcatgcat taatgaaaca tccacaattt ttaaagaatc aagtccgtcg agagattaag 300
tttactgtcc aggcattgcc atggataagt attcttactg ttgcactgtt cttgctggag 360
ataagaggtt acagcaaatt acatgatgac ctaggagagt ttccatatgg attgtttgaa 420
cttgtcgtta gtataatatc tttcctcttt ttcactgaca tgttcatcta ctggattcac 480
agaggeette atcatagact ggtatataag egeetacata aaceteacea tatttggaag 540
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ctcgag
<210> 1136
<211> 469
<212> DNA
<213> Homo sapiens
<400> 1136
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cctggctgaa tgtggaaaag aggactgtgt acagaggtca cccctgtggc tagctgagaa 180
gagtggaaag gagaggtgaa gtgctaaaac tggggtcggg gagaagcctc aggtatggag 240
gaggatgggg cetetgegaa gatgtggtgg ttaacageea tgaggettta gagetggaga 300
gaccetgett cetgaatggg gtettgggca getecettee etgeteegag ceteaattte 360
cccatttgta aaatagggag gatgctccct acttcataag gctgcttgtg gggcagaaag 420
ataaacaggg tcggggcccc tccaagcggc tgggcgaagt gaactcgag
<210> 1137
<211> 113
<212> DNA
<213> Homo sapiens
<400> 1137
gaatteggee aaagaggeet acagetaeet ttateeteat eteceaeegt etectteett 60
atetggettt ttetagttte caacteettt catgaageat gteecegete gag
<210> 1138
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<211> 575
<212> DNA
<213> Homo sapiens
<400> 1138
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accacatggt cttgctgggg acaagaccta gggaacagct cattttggta cagtgtggtt 180
ggttcctgga gagggagagg gaatagccca cgggctaagc agcccactgc aggtacctaa 240
tgcaaccagg aaggtcaggg aaggagatgg ccagccacgc ggtggagttt gaacatcatg 300
tagcagttag ccaggtgaag aggagatgct ggggagacag ggagaggcca ctcctggctg 360
agggacctgt acctgcaaag actctcaggg gaggaggacg gctttctgtc actgtttctg 420
tgtgtgaggg aaatcagagg gtaggcccgg ctgtcccctg cctttcctgt ggggcctgac 480
tgcacgtacc ccctctcccc aaaccctcca ggagttctga gtctctacct ggatcttgat 540
tccactggca tgaaatctgt gaatctcacc tcgag
<210> 1139
<211> 113
<212> DNA
<213> Homo sapiens
<400> 1139
gaattcggcc aaagaggcct actagaatat taaatatact cagtaaattc tgtgaccttt 60
gcaaaggtca aataaatttc aaatagttat ttcaaaaaat gggcactctc gag
<210> 1140
<211> 108
<212> DNA
<213> Homo sapiens
<400> 1140
gtgttggcaa tgctaagaaa cacacacaca cacacacacg gactcgag
                                                                108
<210> 1141
<211> 236
<212> DNA
<213> Homo sapiens
<400> 1141
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tttgtgttct cactaaattg catttttgca tttccatcaa ggcagctagc ttgacagaat 120
ttactccagg caccgtgcag tgcacacttt tatgtttggt gacacctttc aaattactaa 180
cttatgggcg aggtgcagtg gctcacgcct gtaatcctcc cagcaccatt ctcgag
<210> 1142
<211> 520
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (56)
<400> 1142
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aagtggacag gttgaggtgg tetttetatt egteatteae tettatttge aggttetgtt 120
teatgtaett ggaegtettt tageetetea caecttgaaa ttetagtgtg aaaaagtgae 180
ctctgaagtc tcacgcactc aactcgtttg acgaactcgt ttgacgtgtt ctctcttgcc 240
ctttgttgtc tgttgtcttg agtctcatag aataggtttg aacctttcac tgtcggtttt 300
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gtaggagtca ctgaggatat tgacgaggca agtgacaggg tcgacactct tgtagagagg 360
ctgtatagca accaggtgtc tgaaggatta gaggctgggg aaaggagtggg aaagcagtta 420
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<210> 1143
<211> 706
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (28)
<220>
<221> unsure
<222> (396)
<400> 1143
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atgactecca ggaggccaag gtgacttctt ccaacccage cccttccttc catggcccca 120
ageteteece caagaettge gatgaagagg ceateteetg teacceteae tgeaggeeag 180
gtgaccgccc tettgettet tttetecete etgtagggga ataaatgtag ceaettttte 240
cagttaaaaa acatctcttt ctgcggatat catccaaaga acaacaagta agtgggggtg 300
ggatggcagt ggaggaggca cgggtggtct gcagccttga ggtgggtggg tgtgggccga 360
geoccegtee cageacagae agacetytee etgeangtae tttgggttea teaccaagea 420
eccegeegac caceggtttg cetgecaegt etttgtgtet gaagaeteea ecaaageeet 480
ggcagagtcc gtggggagag cattccagca gttctacaag cagtttgtgg agtacacctg 540
ccccacagaa gatatetace tggagtaget gtgcageece geeetetgeg teceeeagee 600
ctcaggccag tgccaggaca getggetget gacaggatgt ggcactgett gaggaggggc 660
acctgccacc gccagaggac aaggaagtgg gacggccgaa ctcgag
<210> 1144
<211> 290
<212> DNA
<213> Homo sapiens
<400> 1144
gaattcggcc aaagaggcct acgagaatgt ggggcacgaa ggttgagctt ggtgatgtgg 60
tgactataat aaccttctgt gttgttgtgt ttgttgtctg tgttgatggt ttagtgaagg 120
ttatttttac aggagacatg tggggtggta aggagttggc aatgctctgc atgatgttgc 180
teatettggg actaceacte acaggeacag tgategtett tgagaetgga acaaeggeet 240
ttggaacttc ctttagaaca acaggagagg agctggagag gcagctcgag
<210> 1145
<211> 146
<212> DNA
<213> Homo sapiens
<400> 1145
gaatteggee aaagaggeet acgagggtag ggaaataaga actacagaga qetcaagaac 60
aattaggcaa ggagatgaga atgaatatgg aaaatctagt taggaatgaa gatattctac 120
attcagagga agcaacgtcc ctcgag
<210> 1146
<211> 721
<212> DNA
<213> Homo sapiens
<220>
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<221> unsure
<222> (9)
<400> 1146
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tttgtgtttt atcccatcaa tctgctcttt caatttggct tagagttata gaatgttcga 120
gctggagaaa ccacattttc tgagaaacat tttatataaa ttctgataac agttgtatga 180
acticiatit citcaagaat catgataagt titatcatat aqqicccaag aaaaatctag 240
gtacagtaac aactggagat caggaatatt tttctaaata tttcttgcat tgtactttta 300
taatgagtet titticaati aaagtgaaaa geateaaage atgatagati tittiaeetg 360
agaaaatggt cttttcattt atatttgaat aaaaattcaa atttaaaact tcaccataaa 420
agteagtaat gttgacaact tgtcagcacc tacttcatag attgataccc acactataat 480
ttagaatgtg gaagttaaaa tagtatetae aeeetgaata ataaataaca tgeaetaaag 540
actiticiti tatggaacte tattagtgic cticctaaaa ataaaatgaa atgaactite 600
ctaaagtgta gtaatattag tactatctaa gtcatcatcc tggccttatg aaatattggc 660
attitictact ggtgtaactt ttattagaag catctcatca taactagtag gatticticga 720
<210> 1147
<211> 563
<212> DNA
<213> Homo sapiens
<400> 1147
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tgaagetetg ggateteact geeggeaaga tgatgtetga gtteeetggt cacaegggge 120
ctgtcaacgt ggtcgagttt caccccaacg agtacctcct ggcctccggc agctctgaca 180
ggacaateeg ettetgggae etggagaagt teeaggtggt gagetgeate gaaggggage 240
etgggeeegt eaggagegte etetteaace eagatggetg etgeetgtae ageggetgee 300
aggactcact gcgtgtctac ggctgggaac ctgagcggtg ctttgatgtg gtcctcgtca 360
actggggcaa ggtggccgac ctggccatct gcaatgacca gttgataggt gtggccttct 420
cccagagcaa cgtctcctcc tacgtggtgg atctgacgcg tgtcaccagg actggcacgg 480
tggcccggga ccctgtgcag gaccaccggc ccctggcaca gccactgccc aaccccagcg 540
ccccctccg gcacaatctc gag
                                                                  563
<210> 1148
<211> 199
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (72)
<400> 1148
gaatteggee aaagaggeet atetatgtaa agtgataett etttetgtae aagaaatate 60
acttetecet enceceacee aacaaagaaa aagttaaaaa ceagtattee tteaaagtea 120
tggggatacc attggcattt tgaatgggac agttcccttg gcagtggaac tctactgctt 180
atctctggcc caactcgag
<210> 1149
<211> 319
<212> DNA
<213> Homo sapiens
<400> 1149
gaatteggee aaagaggeet acattattet tattettaca tteattgtgt ttgcatttga 60
ctgctacccc tatgtcattc tcaactcaaa tcatggtttg ttccactccc acatggctac 120
ttagagggca aatteetaaa taetgeeaga gaaaataaga atagagtgae aataataeee 180
ttttgtttca getttacata tgttetegte agtetttgea aataetgtga tgetetataa 240
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gatggggaaa tagaagttag tgaatttett tagaatatea gtaagtaaat aattgetttt 300
ccaactgtca acactcgag
<210> 1150
<211> 316
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (82)
<400> 1150
gaatteggee aaagaggeet ageceettae teteatgttg etetttete teeteetegg 60
tetteetett tetatetett tnatttatet catecagegg teggeaaace teteetetet 120
tagetetgtg tecgecagec teetttgeet eteggacage aagetettte cagggecace 180
gtttcctcct ctgctattct tttctcacgg agagtggaag ctctcatggt gcttccagaa 240
gcaattetgt teeteett tggggetgag etettetett caateetggt teeatgatge 300
agaagaggca ctcgag
<210> 1151
<211> 544
<212> DNA
<213> Homo sapiens
<400> 1151
gaatteggee aaagaggeet acagagtaaa agtgtttate aaaaagetet ttaaaatatg 60
tatgctgttt gaactagcag ttccgctttt aggaatctat cctggggcaa aagaaataga 120
tcagtgggtt aagattaagt tataatagca aaggaaaaaa ggactaaact caaatgtgca 180
gcaaaaggag acttactgat aactcacagt tcatttctat aacagcataa tatacagctg 240
ttaaaaatta tgtagcaccg taccaaatgg tatggaaata ggtttgtgga attgctaaat 300
agataaaaaa tttaaatgaa actaaataat atgtttagca tgattccagt tttgaaaaaa 360
uaaaacgaat gtayataaaa tgagtagagg aatatacact aaaattatta tggtagttat 420
ctttggatgg taggatttaa atacttttcc tttttttctt gataccattc tgtattttcc 480
aaatctacac taaaaacaag ttttgacaaa aataattcat tctttaagga aaaaagcact 540
cgag
<210> 1152
<211> 682
<212> DNA
<213> Homo sapiens
<400> 1152
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ggtetggete tgteacccag getggagtge agtggtgeaa teactgetea etgcagcate 120
caecteccag egtecaecca tecteetgge etcagectee ggaacagetg gggtacaggt 180
acgecccage ecgaacaggt tttcactagg ttgcctgggc tetttetttc tttgtctgtg 240
tttgtttgtt ggttggttgg ttggttggtt ggtttttgtt tgtttgtttc gagacggggc 300
teeggetetg eegeegggg etgeagtgea atggegegat eteaceteae tgeggeette 360
tgggctcaag cgatcctccc actgtgcccg gcctgaagac agcctttaga gaaagaagca 420
gggggagttc ttccqaggac agacaagatt tctggagttt ggaaagggtg agagactggg 480
tcagcgaaag gaacattccg gtctttatgt tgggatgcaa cgtatagata cagggatgag 540
acccaaaaga gccggcagag gtttgtcatc gtgctcgcaa ggcaactgcc ggtggctgat 600
cccgtaaagg atacacatac ctagagcgga gcctaaagat gcatccagca tgacgggtgg 660
agccacgatg cttggactcg ag
<210> 1153
<211> 163
<212> DNA
<213> Homo sapiens
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<400> 1153
gaatteggee aaagaggeet acaaacatte caagattatt atatttttga aatttgggga 60
ttgttttgaa gttgataaaa tatttcatat tagcaattta ttgagaagtt gaaagaaaaa 120
catgatgete actttaagaa caagtatagg cegggeacte gag
<210> 1154
<211> 116
<212> DNA
<213> Homo sapiens
<400> 1154
gaatteggee aaagaggeet agteattgat actatttaaa agaagggatt tetteteta 60
atttggagaa catgacatat aagggaaaaa gtctaaatgc ctccacctgc ctcgag
<210> 1155
<211> 152
<212> DNA
<213> Homo sapiens
<400> 1155
gaattcggcc aaagtcgagt tttccttgaa aaataaaaga tattgcaccc atgaaataag 60
aagagatgag gataatgeta ttteteteee tetttagttt tttggtttgt ttetttgett 120
gtttaagaca tacagtttca egettteteg ag
<210> 1156
<211> 276
<212> DNA
<213> Homo sapiens
<400> 1156
gaatteggee aaagaggeet agetaegeta aaaaataeeg agaagatata tggagttget 60
gtttacactg gaatggaaac caaaatggct ttgaactacc aagggaaatc tcagaaacgt 120
tetgetgttg aaaaatetat taatgettte etgattgtat atttatttat ettaetgace 180 🐣
anagetycag tatgcactae tetaaagtat gtttggcaaa gtaccccata caatgatgaa 240
ccttggtata accaaaagac tcagaatgag ctcgag
                                                                276
<210> 1157
<211> 272
<212> DNA
<213> Homo sapiens
<400> 1157
gaattcggcc aaagaggcct aagcgaatct tctgcaggcc cttggcaaac tccatctcca 60
gegtegteeg etteteeagg tagetgatga ggteetteat gtaettggee atgttettgg 120
catacagcag tgeggcatec acgeeecet cacagegetg tagcagcaeg tecaceteet 180
cggcgggcag gcagccggcg tcacagtcat ccaggctggg aggcgtgccc tcactgcccg 240
gtccatacag gctttccatg gactggctcg ag
<210> 1158
<211> 304
<212> DNA
<213> Homo sapiens
<400> 1158
gaatteggee aaagaggeet agttigtgag tgegaagtae caattaaggt gtettaaatt 60
tggcgcatag aggagagaag gaaacctgag gagtagtgtt cctcctgaat gaaggttcag 120
gtcaccagec ttetgtacae tgeetttggt tttageagtt etttgaaaag caaacaettt 180
tageceaget acageagaat acattttace ageaaaceta aggatgacaa acaceegact 300
cgag
                                                                304
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<210> 1159
<211> 297
<212> DNA
<213> Homo sapiens
<400> 1159
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gaaggtggat ttgatccctg tgaatgtgtt tgctctcatg aacatgcaat gagaagactg 120
atcaatctgt tacggcagtc ccagtcctac tgcacagaca cagagtgtct tcaggaatta 180
ccgggaccct ctggtgataa tggcatcagt gttacaatga tcttggtagc ctggatggtt 240
attgcattga tcttgttctt actgagacct cctaatctaa gaggatccac cctcgag
<210> 1160
<211> 279
<212> DNA
<213> Homo sapiens
<400> 1160
gaattcggcc aaagaggcct aataaaattg agcaagtaaa gtttgggttt taattttcct 60
ttaggaatga aaggtcataa gccattagaa atagtggcat tattatgcaa taacaacacc 180
ctagctaacc tgcttttgtc atctgtagca cttacaataa aqaatgatga ccttccaacc 240
ctggacacta cctcgataaa gcaaaccaga gatctcgag
<210> 1161
<211> 258
<212> DNA
<213> Homo sapiens
<400> 1161
gaatteggee aaagaggeet agattgettg ageccacaag ttggagaett cagtgagetg 60
ttgatcgcgt gccactgcac tacagcctgg ctgacagagc aagatcctgt ctcaaacaga 120
caggcaaaca attaactaga gttggagccc taccttacac cgtgtggaaa cacaaattac 180
aaggagagtc ttagatcaaa gctttaaact ttatagaata aaatataaaa gatgatgact 240
ttgggctggg tcctcgag
                                                                258
<210> 1162
<211> 452
<212> DNA
<213> Homo sapiens
<400> 1162
gaatteggee aaagaggeet aatacateee acattttgtt gttataacag ttagtagtta 60
gtattgettt catatataga etccagaate taaattttae gataatgaca tttettetgg 120
tcatgacaaa tgtaatattt tacaaatata aatctacgta gaatccaaag acacacagg 180
agcagteetg tetgagaaat aaaaaatcag gacacccatg geategtagt ageceetege 240
gtccagcagg tggcgaaggg aggtgaggtt tatttattaa atgggaccga gtgggacggg 300
gacggggcag ccctaagggt agggaagcat tgtcaatttc tggggataga atqaqaccca 360
ggcatagetg gagtttgaag ctttgaagca aaaatatetg tagaacatet taaaegtgae 420
caaaatatga tgttaaaatc agcaatctcg ag
                                                                452
<210> 1163
<211> 300
<212> DNA
<213> Homo sapiens
<400> 1163
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cagagagaac teaceatgga gtttgggetg agetggettt ttettgtgge tattttaaaa 120
ggtgtccagt gtgaggtgca attgttggag tctgggggag ggttggtaca gcctgggggg 180
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tecetgagae teteetgtga ageetetgga tteacettta gtagttatga catgagetgg 240
gtccgccagg ctccagggaa ggggctggag tgggtctcag caatcagggg gagcctcgag 300
<210> 1164
<211> 326
<212> DNA
<213> Homo sapiens
<400> 1164
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ggggaaaatt gaacactact cacccatagt cctgagtatt ttaaagagcc ttcgtagagc 120
attcaaaatc gggtaagaaa aatggggaaa aataaaatta cttaatcttt aaaaggaaga 180
caagegtatg ctcacctaat tggacttata taatcagget tgctctaget tatccagaat 240
cagagtacag geegggegea gtggeteatg cetgtaatee cageaetttg cetaaacegt 300
cgattgaatt ctagacctgc ctcgag
<210> 1165
<211> 285
<212> DNA
<213> Homo sapiens
<400> 1165
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etectggtgg cagececag atgggteetg teccaggtge ggttacaaca gtggggegea 120
ggacttttga agccttegga gaccetgtee etcacetgeg etgtetatga taagteetet 180
agtggttact attggagttg gttccgccag tcccccggga aggggctaga gtggattgga 240
gaaatcaatc agagtggaaa caccaactac aacccgtccc tcgag
<210> 1166
<211> 279
<212> DNA
<213> Homo sapiens
<400> 1166
gaattcggcc aaagaggcct acataattta accattcccc tgtgttggaa agaaataccc 60
aaacctttcc taataatcag tattgcaatg accattataa caccttcatt tttttttt 120
tttttttttt taacattttg ttgtatttac tttatggagc ggctgtgtgt ccagtatgtc 180
egaceetett eeteggttet gggetegggt gggggtteee ttggeaaact geaggeecet 240
ggctgggacg cccctgctgc cagcgccggc agcctcgag
                                                                   279
<210> 1167
<211> 269
<212> DNA
<213> Homo sapiens
<400> 1167
gaattcggcc aaagaggcct aagcaggcta accgtggaca agagcaggtg gcaggagggg 60
aatgtettet catgeteegt gatgeatgag getetgeaca accaetacae acagaagage 120
ctctccctgt ctctgggtaa atgagtgcca gggccggcaa gcccccgctc cccgggctct 180
eggggtegeg egaggatget tggcaegtae ecegtetaea taetteecag geacceagea 240
tggaaataaa gcacccacca acactcgag
<210> 1168
<211> 267
<212> DNA
<213> Homo sapiens
gaatteggee aaagaggeet aeggtatttg getgttgtet aecetttgaa gtttttttte 60
ctaaggacaa gaagatttgc actcatggtc agcctgtcca tctggatatt ggaaaccatc 120
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ttcaatgctg tcatgttgtg ggaagatgaa acagttgttg aatattgcga tgccgaaaag 180
cctaatttta ctttatgcta tgacaaatac cctttagaga aatggcaaat caacctcaac 240
ttgttcagga cgtgtacgaa gctcgag
<210> 1169
<211> 414
<212> DNA
<213> Homo sapiens
<400> 1169
gaatteggee aaagaggeet aatgeettee tggaaatttt catttgeete tatteetatt 60
gtattatttg ggttcttcc atatttgttt gttcaagatt ctctcatcat taaaaacaaa 120
taaacaaaaa cototactta accotoctca toccattact gototactto tottocttca 180
taaccaagta ttatctacat gcattgtctt cacatcctgt tattaattcc ccaatgcatt 240
aaattetgge teategteet actaettete getgecattg aageteetet ttecagagte 300
actggttact tectattigt gaaateagta ggaagetttt cagteceagt ectactggae 360
ctctcagcag ctctggccaa tgctgaccac tcccccaatc cagaaacact cgag
<210> 1170
<211> 372
<212> DNA
<213> Homo sapiens
<400> 1170
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cteetttggg tetgeacata getetgeetg agagegettg eggggeaaga acaggatage 120
tgggatggag cagcctaagc ttggttcctg cttccggtag ctgcggacaa ccttggcggg 180
aatetteett tggetgtaet tgaggeaaca gteetgagee eeteeateae tgeettgggt 240
cctggggatg ccaaaggcca gaaccaggat aaggaggctc agagccagtg actgagccat 300
gtetgtggta gagggtgagt aagaggeeag agetgagggt gaggtgggea getgesagtt 360
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ggyggtctcg ag
<210> 1171
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1171
gaatteggee aaagaggeet agtittitig tggtttigtt gttgtacatg ttatagtigt 60
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aaaggaaagc aaatatatat ttgtagcttt tgttatagta accttattta tcatttcagg 180
ttgtttgttt attttcttg tggattcatt accatctgga gtaattttgt tttcttttc 240
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gtgcagtgtc atgaatacat ctcactcgag
                                                                   330
<210> 1172
<211> 356
<212> DNA
<213> Homo sapiens
<400> 1172
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gttttgcaaa tattttttct atttcataag ttgccttttc actctgttgt ttcctttgtg 120
gtacagaaat tittaaagtit gatgtagtic tattigtita tittigcitt tgtigcitgt 180
gtttttgtgt catattcaag aaatcatcac caaattcaat gttaggaagc tttttttatt 240
tttatttta ttttttaata gagacagggt ctcaggctgg tctcgaactt ctgggctcaa 300
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<210> 1173
<211> 297
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<212> DNA
<213> Homo sapiens
<400> 1173
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aataatacaa attgataaat aggtttttag taacgtactg taaagtgtag gcagagagaa 180
gcattetgta gteetatagt taggtetetg aegtetggta ageetatgee eetgaactgt 240
aaacttcacc agtgcttctt agaccgtcct cttgtagaaa caggtaactg cctcgag
<210> 1174
<211> 259
<212> DNA
<213> Homo sapiens
<400> 1174
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gttttgtatg agattattct cagcctactt cattatcaag ctatattatt ttattaatgt 120
agtttgatga tottacagca aagctgaaag ctgtatotto aaaatatgto tatttgacta 180
aaaagaagtt attcaacagg agttattatc tatgaaaaaa atacaacagg aatataaaaa 240
acttgaagag gatctcgag
<210> 1175
<211> 345
<212> DNA
<213> Homo sapiens
<400> 1175
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tttataacat tatacctttc caatgtaget ttttggttgt tccctttttt tgtttgtttg 240
tttgtgacca agtcttgctg tcacccagge tggagtgcag tggtgtgtga tcacggetca 300
ctacageett eaceteecag geccaageaa teeteecaac tegag
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<210> 1176
<211> 272
<212> DNA
<213> Homo sapiens
<400> 1176
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tattcagttc tatacatgta ataaacatcg tgttcacata actcttgcat tattttttgc 180
tttgaccaaa aaaagtagta aacaggatta tatctttagt tcatgtacta aatgacagcg 240
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<210> 1177
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1177
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ccaggggcat ggggagggaa ataaataata aacaccatgg gggataagga gccaggagga 120
atgggggtgt gaatggggag gtgctcgatg cttatttgtg gcactaaagg tcttgcaaga 180
tgcccctga ctgggggccg tgtccatgaa ttctcgag
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<210> 1178
<211> 728
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<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (20)
<220>
<221> unsure
<222> (72)
<400> 1178
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aaaatcagca gntttttctc ccagaaatgt aattgccaaa cactattcat ccccatctta 120
agttttacaa ggtgatgtaa tcagcttgtt gtagtgatgc tggccaaatg gtgctcagca 180
ggtgagaaca aaaaaacccc agatttcagt gaactaatac acagcttgag cgtttccatg 240
tgctaatgtt gcacacttac taaaaaactt tggaaatgga aaataatgta ttagtgcaac 300
agttgatgtg cttctttggg caaagatata gttttgttcc acaatttgta cttaaaagcg 360
aaagaacatt gaaaacatag acttactggc tgtagcaatg ctggcctgtt aactgataac 420
tagaacttag gttcacgttt atgtaaagtg tgtaaaacct agtagagctt gcatagtcgg 480
cactcagtaa atgtttggtt ccttttgccc cttggtaagt ttattttacc atcctcccac 540
etgecattet gaetttatta aateaacatg tggaccagag tgttaatgag atgttattge 600
agaagagatt gagaaaattg gtatatcatg cagataacat acaaaatctt tttgtaacgt 660
aaaaaaatgca gttttattat tgcttgtgcc tcaactgttt aagtgaatat taaagggctt 720
atctcgag
<210> 1179
<211> 500
<212> DNA
<213> Homo sapiens
<400> 1179
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teattttaac tgtgaatggt cgaaataaac caattaaaag atggagattg tcagagtgca 180
tctaaaaaca aaacccaact gtatattttc cacaagataa ccactttaaa tagaaagact 240
catatagatt aaacgtaaag gaatggagga aaatatacca tgctaacact aataaaaaga 300
aagcggaaga atagatgaat ccactgttag agttgaagac ttcaacatct ctctaqaaat 360
tgacagatge agcageegga aaattggtaa agacataatt gaacttaaca geaceateeg 420
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cttctcaagc tcaactcgag
<210> 1180
<211> 177
<212> DNA
<213> Homo sapiens
<400> 1180
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aagatetetg cagetgeeet caccateate etcactgeag eegeeetetg cacceeegea 120
cctgcctcac catatggctc ggacaccact ccctgctgct ttgcctaccc cctcgag
<210> 1181
<211> 704
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (26)
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<400> 1181
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actaaaaaaga cagaagattt atactggaga cagcagtcac taaaaaccca acccacact 180
tactgtaaac cagaccactg gattcactat gaaaatctta aatctcccct acgtgatcag 240
tataatatgt gtccagaccc tgttagcctt agtaaaccta gtgttttaca aaataaacaa 300
gacacggaag ctttcacttt agaacatttt ttaagtaagc cagaagaaga gttgttcttg 360
aatatggaaa acaatgaaga aacaagacct gttcttggtt ggattcctag agctggagtg 420
accaaacctc agaccaacct getggagett aagaactett tttcaaaaac tggtgcacaa 480
aagcgtttcc ataaatcaat tctagaagac cataaagacc tcagggataa tgagcattcg 540
gggatgaagc accaattcta tggccataat tcctattatt tctataattg agatactcat 600
tetteeette aaaacecage etettgeaag aagetaaaaa atataacaga attteetteg 660
tattgctgga ttctgttttc tagattaaac cacaaggact cgag
<210> 1182
<211> 863
<212> DNA
<213> Homo sapiens
<400> 1182
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tetgggetae etgggeacaa gaacteetet aaaaatacaa agccaaaace aateccatgt 120
gcacatttca aacatacgat ttgcatctaa atcaagtgat tcttgaattt catcaagcag 180
ctgaaaggcc tacaaatttc aaatatttta cataacagtc tagtgaccaa agctagcttc 240
tcattataca gtcctattgg tttatcctaa gtactctaac cacatcacct ggtggccctg 300
aaaggctgtt ttggctgaaa aaaatgtgac agaggccagc agatgctttg gaaagcagga 360
ctctagatgt gaatttgtgc tcagagctct gtacaaaact ctcaatatga gaacccacaa 420
aagcagagtt agaatagcta catttttagg tccccaataa caaacatatc attttgcaaa 480
gtgatgggaa agtaatttca aaagaagcaa tggtacaaga tggctcaatt gatctagccc 540-
cacacagact teagacagea atgeetgatt cageaaacca ggtaggggtg tgacattett 600
taaggetgag gagtggcagg agcagettge atcagtcate tggaaacate actgggtett 660
caaccateee tgaacaetca getetgteee cacaggagga caccagggae ttgtgetgaa 720
attentiated agreentiting the the tectes at a tetrangement of the tetrangement of tetrangement of the tetrangement of tetrangem
attecetyce agetgecaec tyccatgtgt ctgtaccact ettetetgtg tttgcatetg 840
tgggtcttga caccettete gag
<210> 1183
<211> 652
<212> DNA
<213> Homo sapiens
<400> 1183
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gtetgeettg teataccege ggtecegate cegtteeetg tetegetete tetetetgte 120
taccttgtca tagccacgct ctcgatccct gtcagacttg tcgtggcccc ggtctgactt 180
gtcgtggccc ctgtctagtt tctcatggct gcggtccgac ttgtcatggc ccctgtccga 240
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gtctgcattc cagtagtaag ggagcccgca ggaagggtcg aacaccttgt accagcttgg 420
tggtaggccc tccaacctgg tggcctcgta gtccacagga tcatcgtcat agtcctcggc 480
aatgatetet teetetggtt caggetecag atgtttgagg atgeetetet tggecaageg 540
ggtctgcagc gcaacgggca gcggcatagc tgatagcaga cagacctggg cccacacgac 600
tetettecca aaacacegaa tgagacette teteaacgag geetteacte eg
<210> 1184
<211> 126
<212> DNA
<213> Homo sapiens
<400> 1184
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gaatteggee aaagaggeet agtgaagtgg accaaagtet atggaagtgt ttgetgeact 60
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ctcgag
<210> 1185
<211> 468
<212> DNA
<213> Homo sapiens
<400> 1185
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cctgcggtgt gtgctcccgc ctggcgccat gggtgtgtgt tccgcccgtt cactggggag 120
tggaggtgtg ggcaccggcc ctggaggctg ccggagctgc aggttctccg cctgcagctt 180
gtggatctet egetgeagee teeggagete gtegeteagg etactgttga cetteatgag 240
etgetgeacc tttgeeteeg atgtageeag ggeettette ageteeaggt aeteetgeag 300
cgtcacagcc ccgtcagaca agtccgagga gtccatgctc cgggcccggt tgctccgagt 360
ggegeeggtg etgegeaggg geteetggte tgtgteeteg teagaggeea egetgtegta 420
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<210> 1186
<211> 328
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (116)
<220>
<221> unsure
<222> (125)
<220>
<221> unsure
<222> (147)
<400> 1186
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acacatgcag acatactcac agagacacac acagacacat acaaacagaa actcacacac 300
acaatcacac agagacacac gtctcgag
                                                                   328
<210> 1187
<211> 488
<212> DNA
<213> Homo sapiens
<400> 1187
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gcaataacaa tttttttcaa accttaaaat gttccaagaa aaatgactaa gaatgatttt 180
tttccatcca gtatatgete taaaaataag gacaaactat aatagaagta acgatttttg 240
gtacacatgt ttaaaaaaat gtccatgtca ataaacaatt tcaattaatc aataaactta 300
aaacaaccat taaatgtaat ttgcattttt gtatcagatc catacaatct caaatatcaa 360
gattttetta ageteaatge taaatgaeeg gatatetate attgtggaga aacagagttt 420
gatettagge agaegaaagg aaaagaaagg cacacaceta gaagaateae atgagtetea 480
ttctcgag
                                                                   488
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<210> 1188
<211> 473
<212> DNA
<213> Homo sapiens
<400> 1188
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gtcctgccag ctgtccgacg atgtcgtccc acctagtcga gccgccgccg cccctgcaca 120
acaacaacaa caactgcgag gaaaatgage agtetetgee eeegeeggee ggeeteaaca 180
gttcctgggt ggagctaccc atgaacagca gcaatggcaa tgataatggc aatgggaaaa 240
atggggggct ggaacacgta ccatcctcat cctccatcca caatggagac atggagaaga 300
ttcttttgga tgcacaacat gaatcaggac agagtagttc cagaggcagt tctcactgtg 360
acagecette gecaeaagaa gatgggeaga teatgtttga tgtggaaatg cacaceagca 420
gggaccatag ctctcagtca gaagaagaag ttgtagaaga agagctactc gag
<210> 1189
<211> 429
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (145)
<220>
<221> unsure
<222> (196)
<400> 1189
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aagaccacca actgetteeg tittgeteagt geetggetea geataaactg atggaaactg 120
ggtggttttg teactatatt etgtnetggt tacattgtce tegtetgtgt eggtagattt 180
ttccatctcg gtaggnactt tagattctac agatgttttt cctggttctt ttaaacattc 240
caatttette tgtggtgteg tteettetga ceatttetet actttaatet gatgaaattg 300
tttaaccaga tetttetatat eeatagtagt atteceteta tacatagtaa gttettgaaa 360
ataagetget geaaactggt tgatgtttga tgggttggtt ttgagaacag etetgetaat 420
tccctcgag
<210> 1190
<211> 242
<212> DNA
<213> Homo sapiens
<400> 1190
gaattegegg cegegtegae atgggetgtg cetteateaa cetetgeate ttggetteae 60
agcatgettg ggeteagete acattetggg aggeeageea getttacetg etgtteetga 120
geettaeget ggeeactgte aacgeeeget ggetggaace cegeaceaea getgeeatgt 180
gggccctgca aaccgtggag aaggagcgag gcctgggtgg ggaggtacca ggcacgctcg 240
ag
<210> 1191
<211> 230
<212> DNA
<213> Homo sapiens
<400> 1191
gaattegegg eegegtegae atgaaagegg ggaaatgtgt gteececaet gtgetgataa 60
atgtgtccat ggtcgctgta ttgctccaaa cacctgtcag tgtgagcctg gctggggagg 120
gaccaactgc tecagtgeet gegatggtga teactggggt ceceactgea ceageeggtg 180
ccagtgcaaa aatggggctc tgtgcaaccc catcaccgga gcttctcgag
                                                                   230
```

```
<210> 1192
<211> 217
<212> DNA
<213> Homo sapiens
<400> 1192
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ggctggacac agcccctgga caatgatcca gacagctggc tgcccctcaa gggacctgtt 180
accttcageg agacccattt cctccccatc cctcgag
<210> 1193
<211> 244
<212> DNA
<213> Homo sapiens
<400> 1193
gaattegegg cegegtegac cecacteece ttececeate teteactgtt ttgtgtacac 60
actgtgcaca cactacetgt getecetgce ceacatgett geacactget tgetecteet 120
gragggatte teeteteet teeacatgee egeagettet etteeaacet eagteteaac 180
agetetteet caccagetga cagecegggg ceatgeceag catteetete ecetageget 240
cgag
<210> 1194
<211> 236
<212> DNA
<213> Homo sapiens
<400> 1194
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ctatgtatat geteatetet atgtatatge cetatgteac teaggaaaac attagtttac 120
taaccatctc tcatttaaaa acaaaaccct ttgggccagg cgcggtggcc tacgcctgcg 180
gtcccagcae cttgggagge ccaggeggge agatcateeg aggtcaggag ctcgag
                                                                   236
<210> 1195
<211> 231
<212> DNA
<213> Homo sapiens
<400> 1195
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acgttccaca ttcctgaaat ggccctgtct cccctcaccc acagcctgct cctcagcatg 120
geagteactg tetecaceca gettttetgt caggtteect ggggteetge acaagteegt 180
ctctgccaca teccaegtea eeegegteee aegteaeeee egteeetega g
<210> 1196
<211> 149
<212> DNA
<213> Homo sapiens
<400> 1196
gaattcgcgg ccgcgtcgac attggggttg caggtggcaa gaaggtggat ttgtgtcaag 60
agetgaacat getgetgeat etgetgetgg agtetettee titgtgetgg gtecagaate 120
agggtctgat gaactccctt acactcgag
<210> 1197
<211> 207
<212> DNA
<213> Homo sapiens
```

```
<400> 1197
gaattegegg cegegtegae etttaaataa aattaggaga aaatgtegaa geageagete 60
ettecactet tggeetgggt ggeeetagtt ceaetgtaca etttggeeae tgegteaetg 120
eeggttecag ggcageeggg ageceeactt gggaceetgg ceeteeette tgtgaggetg 180
gtgcttcggg acgtcgcctt gctcgag
<210> 1198
<211> 255
<212> DNA
<213> Homo sapiens
<400> 1198
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taggatttgg ggatgtggat atttaagaca atttctttt tcttttggtt taataggggc 120
gggtataggg accaactggg accgagtgcc cagggggccg agcacggtca tgctggccgg 180
cetgeatgea tgegtgtgee gggetggget gggeggeegg eggtegtggg geagggttgg 240
gggtctcacc tcgag
<210> 1199
<211> 226
<212> DNA
<213> Homo sapiens
<400> 1199
gaattegegg eegegtegae eaggattgte atttteetet ttgeetgtgg gtttaacttt 60
tgtatttttt taatcacaag tttgatacaa aatgttttta tcgtactctt tggagatgcc 120
cattctactt ttgaatttag cttttactaa ttcgcatctg gaagctcagc aagtgcacaa 180
gccttacttt ggttaccgtg gaaaccactg ccaccctggg ctcgag
<210> 1200
<211> 301
<212> DNA
<213> Homo sapiens
<400> 1200
gaattegegg eegegtegae eegecetgee eageatgtee teaactttet gggegtteat 60
gatectggcc agectgetea tegectactg cagteagetg geegeeggea eetgtgagat 120
tgtgaccttg gaccgggaca gcagccagcc tcggaggacg atcgcccggc agaccgcccg 180
cgcaagaatc atcaagacca agcagtggtg tgacatgctt ccgtgtctgg agggtctcga 300
<210> 1201
<211> 379
<212> DNA
<213> Homo sapiens
<400> 1201
gaattegegg eegegtegae egegeeggaa geacetagag ageggegegt gegeageggg 60
agtegaageg gagateeegg gtegegegag ageegeaage ggagttggtg ggegetatge 120
tatcacccga ggcagagcga gtgctgcggt accttgtaga agtggaggag ctcgccgagg 180
aggtgetgge ggacaagegg caggtgagag geceeteege ggegatgggg cetggeggee 240
ggegeegtgg gaaagegege ggggtegeag tgagttgace tggacaggeg gttaacgget 300
ccgaggcgac agacctgggc cgataaatat tcggccgcta ctaagtgagc gcctgcgcta 360
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<210> 1202
<211> 224
<212> DNA
<213> Homo sapiens
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<400> 1202
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eggeeteetg gagaatgeea acceeteat etaccagege tetggggage ggeetgtgae 120
ggcaggcgag gaggacgagc aggttcccga cagcatcgac gcacgcgaga tcttcgatct 180
gattegetee ateaatgace eggageatee acaaaaeget egag
<210> 1203
<211> 418
<212> DNA
<213> Homo sapiens
<400> 1203
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gaagtgctgc tcatttctcc ttgccaggaa caccatggct ggcactcgac gggtggaggg 180
gcaggttggg ggtaggcccg ggggtcctgg ctgcagcctc atgccgccac ccccgcagga 240
gtgcgctggg gagccgctgt tcatgctgta ctgcgccatc aagcagcaga tggagaaggg 300
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<210> 1204
<211> 404
<212> DNA
<213> Homo sapiens
<400> 1204
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tccccgccgg cagtgccgcc gcccccacc ttccgcactg ggtcttccac ggagaaageg 180
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ttgattgeca cecteaecat egtggetetg ggeatetgeg tgeetgteag tettgeteet 180
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<212> DNA
<213> Homo sapiens
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cagteaacta teteatagat tagecaggea tggtggtgca cacetgtgat eecagetact 180
tgggaggetg aggcaggagg atcacttgag ccccggaggt tgatgccgta attgtgccac 240
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<212> DNA
<213> Homo sapiens
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<212> DNA
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<211> 229
<212> DNA
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<211> 262
<212> DNA
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cttggacgac ccgacgccgg actacatgaa cctgctgggc atgatcttca gcatgtgcgg 180
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gaggageteg tgetegacag gtgtgtaege nteaeggaca tnggeeteag etatetgtee 240
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<212> DNA
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tcagactagg agcaggggaa agatgctcac ctggggctcct ctgctggccg ccactccacg 240
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gagaagaagt actccaagca ggtagacgac cgatttggtg cctatgtggc gtgtgcctcg 360
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<212> DNA
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<400> 1219
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tggtcccggt actttggggc gggcggatcg cttggggtcg ggagttcgag gccggcctgg 240
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<211> 281
<212> DNA
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cetggtgeet tggaccccac gtgettgtgg ccaggetgee ettgecegag cceggggeee 240
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<212> DNA
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<212> DNA
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<212> DNA
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tgcatttttt tttttttt tttgagacag ggtctcactg tcgcccaggc tqqaqtqcaq 180
tggcgtgatc tcagttcact gctgctttcc ctcctgggct caagcagttc tcccacctca 240
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acctetecaa ecceaacetg geetgetgat gaaacaceae aacceeagae ecagaceeag 300
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ccaagtgett tttgtttttg tttttgtttt tgtttttgae ggagtettge tetgtegeee 240
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<212> DNA
<213> Homo sapiens
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<211> 362
<212> DNA
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<210> 1233
<211> 317
<212> DNA
<213> Homo sapiens
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cetgectggc cagettetgt gtggaaacca acaatggege aggetttggg etttetatec 180
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ggggtcagga aagaaactgc ngtgccagca accaaaagta acatcaagag gaccagctct 180
tctgaacgag tgtctcctgg gggtcgaagg gaaagcaatg gggattccag aggaaaccgg 240
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<211> 346
<212> DNA
<213> Homo sapiens
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aaactttttg cttttgcttt getggaaggt aaactcagee tgegggttte taageeetga 180
aggecaccag gactegeagg acceletty tacatyttea tygeceagga gteegggagg 240
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cggatttcaa tetecetetg acggttetet ccatggeeeg etegag
<210> 1236
<211> 353
<212> DNA
<213> Homo sapiens
<400> 1236
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cacagctaaa aaattcaagt gaagagaaag aagctatgaa ttccatttgc cagacagcac 120
tttctgcaga tggcaaaggg agcaaaggca gtgaggagga tgtggtgtca aagaatcaag 180
gcgatagtgc cagaaagcag cctggctcat ccacctccag ttcttctcac ctagcgaagc 240
cttccagcag cagactgtgt gacaccagtt ctgcaaggca ggaaaqtacc agcaaagcag 300
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<212> DNA
<213> Homo sapiens
<220>
<221> unsure
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<222> (123)
<220>
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<222> (182)
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<221> unsure
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cantgeecca ggagacagat ggeeagttte tteeetgtge aceggageec acggacecte 180
ancgaettte ttettetgaa gnagaetgag ageaeteagt getgeecagg gageeetgtt 240
gcacagactg aaagtccctg tgatttgtca agcatagttg aggaggagaa tacagaccgt 300
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attgtggact ctggaactgt atctgatcaa gacagctgcc ttcagagctt gcctgatntg 420
tggagtaaag ggcacqqaaq qcctttnqtc ctqtqqaaac agaaatgaag aaactggaac 480
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<211> 358
<212> DNA
<213> Homo sapiens
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tacttettge atttaattag tagatgtttt ettttggttg ceagettaga ttttttatge 240
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<210> 1239
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<212> DNA
<213> Homo sapiens
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gtaaaatctg tgatgctgaa gcagagtgtg tcacaaagtg atgagaacat tactaaaatc 240
cacggacgca ctgcgaccta agggctcaac ggctgactcg gcagcgggca gccaccccac 300
geteccetge ggtcactege acaccacage etgaagetee eccagegeet geacetegea 360
cacagetaag gtcaaagttc aaacgcactc cacaeggaag ctcattetat accegaagag 420
cagtotcaga aagcaagatt acttttgtgt tttttaaaaa atgattottt aatgtatttt 480
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<211> 323
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<212> DNA
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gtetteeaga aggaeetgtt gattetgagg atgaegaaga ggaagatgaa gagattgate 240
gaacagatcc attgcagggg cgagatcttg ttcgagaatg tcttgaaaaa gaacctgcag 300
acaaaactga tgatgacctc gag
<210> 1241
<211> 168
<212> DNA
<213> Homo sapiens
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<210> 1242
<211> 428
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (52)
<220>
<221> unsure
<222> (113)
<220>
<221> unsure
<222> (412)..(413)
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aagcaaatag gcaacttcaa gatcctttag taatcatgac aggaaacatc ccnacatggc 120
ttactgaget aggaaaaace tgcccatttt tettteettt tgataceegg caaatgettt 180
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aaatcaacca gtctgattct caagatagca gagttgcacc tagattggat agaaaaaaac 300
gtactgtgaa ccgagaggag ctgctgaaac aggcggagtt tgtgatgcag gacctcggca 360
gctcacgggc catgttagaa atccagtatg aaaatgaggt tggtacaggt cnngggtctc 420
cactcgag
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<210> 1243
<211> 735
<212> DNA
<213> Homo sapiens
<220>
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<222> (65)
<220>
<221> unsure
<222> (443)
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agactegaag gtgggettgt ttetgtgace tgeaageeee etteecacet gaetteeate 240
ctetetette cectegettg etgtgetgtg gecatgetgg ggteetgett geactteeca 300
cggatgattc tcagcacatc ccatcagttt cacttttgaa gctgccctcc tgggctgctc 360
ccaccatagg etgegteatg catteeetet teteagatgg ccgtgeettg egeeteacte 420
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cetggccaca egeteacteg caetgetgtt tettagtgtt tetcagtgtt tgtagettat 540
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acaaatagat gggagtgtgt ctcttcgatg gcttcttgtc cgtggcagtt ctggggtccc 720
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<210> 1244
<211> 576
<212> DNA
<213> Homo sapiens
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tgttccttct ggaccagttt taagccatct cttctgttgt ttctttcctc ccaaagatgt 120
agacttttcc acttaaaagc atttccaaga ttctattttt tcatcctttt ttctgtccct 180
attetette actecceaca ettgtteeta geetgtetet gttgetetga tgtccatgtt 240
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tgtagccctt gccccaacat ctgtgcattt gactcccctt ctctgaccga ggcctgctcc 360
cateccetee tetaccaact catecettet eteccacetg ceetttgtge tgcccccae 420
aaccacacca ctcagggtct cagctcttgg gatcacattg acacacccc acattttaca 480
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<212> DNA
<213> Homo sapiens
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tgcagctgtg tagtcagtca tccataggat tctttttgtt agacacaaag tagaaaccag 180
ctgttggccg ttgagacaag taggaatctt aggaaatgtt agcctgccag ttcctacttt 240
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atetaaatge ttatacaaac tateecaagg teacaggaaa ttaatggcaa tattatacaa 540
ggttagggta gttcactttc tataggaatt tggattttac ttcttaaact acaatggaaa 600
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<221> unsure
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tatatgagaa gagtgtcaca attattaata aaactgcttt gatcatgtat tgtaaattct 180
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ctgtgtgttc cttgctgtac gttagacatt tgtaaactgg attctgattg tcagttttat 360
gagagcaata getteettaa agagataagt catatttace tagtttgtat teteetaett 420
tagtgacctg aagatgcctg ataatttcat tcagaagaat ttttgaaagg tagtcttact 480
tetttttagt ttttataget tageattagt gaettattte aaaagaeeea aatetegag 539
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<212> DNA
<213> Homo sapiens
<400> 1247
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gatgaattga caatcaaaga aggagatata gtcactctca tcaataagga ctgcatcgac 240
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aagttacttc caccggactt tgaaaaggaa gggaatagac ccaagaagcc accgcctcca 360
teegeteetg teateaaaca aggggeagge accaetgaga gaaaacatga aattaaaaag 420
ataceteetg aaagaeeaga aatgetteea aacagaacag aagaaaaaga aagaeeagag 480
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eggecaceta agaceaatte teteageaga eetggegeae tgeceeegag aaggeeggag 600
agaccggtgg gtccgctgac acacaccagg ggtgacagtc caaagattga cttggccggc 660
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<210> 1248
<211> 123
<212> DNA
<213> Homo sapiens
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gag
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<210> 1249
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<212> DNA
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<213> Homo sapiens
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<213> Homo sapiens
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<211> 534
<212> DNA
<213> Homo sapiens
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gaaagaaaag aacgcttgaa aaaagaaggg aaacttttaa ctaaatccca gagagaagcc 240
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<211> 635
<212> DNA
<213> Homo sapiens
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aatetttegt eecacagage teagtgeaac caccagaagg agacagtgaa acaaaagete 420
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<210> 1253
<211> 319
<212> DNA
<213> Homo sapiens
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<211> 329
<212> DNA
<213> Homo sapiens
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<210> 1271
<211> 250
<212> DNA
<213> Homo sapiens
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tatatttett agaattttet gactateeet aaateetgea ggtaaattat teecaacaaa 180
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<212> DNA
<213> Homo sapiens
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aaacatggcg cgagaccggc attteetttg tgaceteagt caccegeete atggaacgte 180
ttcttgacta cagggactgc atgaaaggag aggaaacaga gaataagaag ataggctgca 240
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acatectega g
                                                                   311
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<212> DNA
<213> Homo sapiens
<400> 1273
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actcgag
<210> 1274
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<212> DNA
<213> Homo sapiens
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<210> 1285
<211> 410
<212> DNA
<213> Homo sapiens
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<211> 143
<212> DNA
<213> Homo sapiens
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<211> 741
<212> DNA
<213> Homo sapiens
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ctggcttttg gatgccacag aaggcccctg gagcacccag aagagaggta aacaggatta 420
cctgacacag ttaggtacat gggattacca aaatgatctt taatattcct caggttatat 480
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ctgagtatat gctatcgatc acaattaagg ttgttaagtt attgtaaact atggagataa 600
ccaaatgtat ttgtcagttg tgtttctgac tgtaactacc ctggacattt tgttattcat 660
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<211> 171
<212> DNA
<213> Homo sapiens
<400> 1288
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catectaatt etgteatgee atecatgaae teetgtttgg agaactegea etgtgttget 120
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<210> 1289
<211> 132
<212> DNA
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<213> Homo sapiens
 <400> 1289
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 <211> 195
 <212> DNA
 <213> Homo sapiens
 <400> 1290
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 gtaagagttc tcgag
 <210> 1291
 <211> 327
 <212> DNA
 <213> Homo sapiens
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 ccaactgtca ttctccgagg cctcgag
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 <211> 598
 <212> DNA
 <213> Homo sapiens
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 cagettetee acaacateee tgeteageaa etactggttt gtgggeacae agaaggtgee 240
 caageceetg tgegagaaag gtetggeage caagtgettt gacatgeeag tgteeetgga 300
 tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga ctggggatga 360
 ceggttetee tteeggaget teeggagtgg catgtggeta teetgtgagg aaactgtgga 420
 agaaccagca etgetecate eccagteetg gaaacaattt agageeette ggtecagtgg 480
 tacageggca gcaaaagggg agaggtgccg aagtttcatt gaacttacac caccagccaa 540
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 <210> 1293
 <211> 256
 <212> DNA
 <213> Homo sapiens
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 ttcagtttcc tttttaattt cttcatggac ccactggtca ttcatgagca tattgtttaa 180
 tttccacgta tttgtattcc tcttgttatt aatttctagt tttattccat tgtggtcaga 240
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<212> DNA
<213> Homo sapiens
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ttatcagaag gctcaaattc tgataatttt agctaatagt attctaccta agaagtaaac 240
awaggcccag aaattagatg atatgtccaa ggacatagta aatggggagc caggctcgag 300
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<211> 153
<212> DNA
<213> Homo sapiens
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<210> 1296
<211> 269
<212> DNA
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<210> 1297
<211> 577
<212> DNA
<213> Homo sapiens
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cccggcactg ttttcggcct tctgtggcct cttggtcgcc ctttcttacc atctgagccg 240
tragagrage garceatetg tacteatgte etteateraa tgeaggetgt tteetaaatt 300
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agtgacggat gtcttaaaat gggatctcat cgtctgcgca gtggttgctg tcctctcatt 420
tgcagtcagc gccagcactg tattcctqtc attgcqacca tttctcaqca tcqtqctgtt 480
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<210> 1298
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<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (147)
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<220>
<221> unsure
<222> (225)
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<221> unsure
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<222> (273)
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gggcatcccc ggttgggtgg tgaccctggc tgtgtggcct gcacntgatg cagcatgtat 240
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gettecagge etgeacaegg ggeageatga geageaegtg accagegtgg eceteageee 360
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tgccactcga g
<210> 1299
<211> 378
<212> DNA
<213> Homo sapiens
<400> 1299
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agtaccgcag tytttatcca aaactcaaca gaagtcaaga gaactgaata atgttcacac 180
agcagtgcgt agcttgcagc tccatctgaa agcattactg aatgaggtaa taattcttga 240
agatgaactt gaasagettg tttgtactaa agaaacacaa gaactagtgt cagaggetta 300
tcccatccta gaacagaaat taaagttgat tcagccccac gttcaagcaa gcaacaattg 360
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<210> 1300
<211> 367
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (356)
<400> 1300
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acattttagt cagtaagacg atataaccta cttactccgt aaggggaaat gaaggcccgg 180
agaagggaag ggacttgacc gaggtcccac ttctgtttcg aggcagaagc cagactaatt 240
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<210> 1301
<211> 1006
<212> DNA
<213> Homo sapiens
<400> 1301
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ggaccttctc gaagagatca tttcatgaaa agtggatttg cctctgggcg gaattttgga 180
aacagagatg ctggtgagtg taataagcga gataatacat ccacaatggg tggttttgga 240
gttggaaaga gttttggaaa cagaggtttt tcaaacagca ggtttgaaga tggtgatagc 300
tetggtttet ggagagagte tagtaatgae tgegaagata atecaacaeg gaacagaggg 360
ttttccaaga gaggcgataa tgacttagac ccagacgaat gtatgcagcg cactggtggc 420
ctttttggtt ctagaagacc agtattaagt ggcacaggta atggtgatac ttctcaaagc 480
agaagtggca gtggaagtga acgaggtggt tacaaaggtt taaatgaaga agtaataaca 540
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ggaccaaaag tgacctacat accccctcct ccacctgagg atgaggactc catctttgca 660
cattatcaga caggcataaa cttcgacaaa tacgacacta ttcttgtgga agtgtctgga 720
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gettttetee taccaatttt ggeteatatg atgeatgatg gaataactge cagtegtttt 960
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<210> 1302
<211> 596
<212> DNA
<213> Homo sapiens
<400> 1302
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ccctgcagga gctggaggaa gaaacagcca gacttgaaag gaagaataag acgttggtcc 120
acagtataac agaacttcaa caaaagetta caaggaaatc acaaaagata accaattgtg 180
aacaaagcag tocagatgga gooctagaag agacaaaggt taagttacaa cagotggaag 240
cttectatgc atgccaagag aaggagetge teaaggtaat gaaggagtat geatttgtga 300
cccagetetg tgaagateaa gecetetaca taaagaagta ccaggaaacg ttgaagaaaa 360
tagaagaaga actagaggct ctgttccttg agagagaagt atcaaaactc gtgagcatga 420
accetgtgga aaaagagcat accagccaaa ataatgaggg tactectace caaaagacag 480
caagattatt cagtaaaaag attttttgct gtctcttttt catcacccta tttttcatca 540
gactgctgag ctacatgttt tttcatgtaa gattcataaa tccagctctc ctcgag
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<211> 117
<212> DNA
<213> Homo sapiens
<400> 1303
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<210> 1304
<211> 123
<212> DNA
<213> Homo sapiens
<400> 1304
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ctgetecace teattggeag tgggetgeat tgetteatta tgetettett ecaatatete 120
gag
<210> 1305
<211> 140
<212> DNA
<213> Homo sapiens
<400> 1305
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gtagaatact gagaaaataa ggtgagtage attcaagaat taaggtaagg atcttcatga 120
aaacttgctg gatcctcgag
<210> 1306
<211> 332
<212> DNA
<213> Homo sapiens
<400> 1306
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gttcttttat gctttgggtg ttgcatccga gaaatctttt cccatccccc cttctcaacc 180
ccacctctcc tgtaaccccc tttcccttgg ccatgatgcc ggggcccttt aaccctcttt 240
ccatggaagt cactttacag ctgcatcgtg cctcctactc cactgagtgt gggaggccca 300
aacggetgee cactgaceee tacceaeteg ag
<210> 1307
<211> 314
<212> DNA
<213> Homo sapiens
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cttaccette cagaagagtt ggccatgact tgattatete caagacaaca gtgacteeta 180
gatgtgtctt cagcccctgc cttttgtgac atcatttgca ttttttcaat tgcccaccag 240
aggtggccac tgggttttca ttttgggttg cgtataccta acctaattcc ttctctgatt 300
ccccaaact cgag
<210> 1308
<211> 332
<212> DNA
<213> Homo sapiens
<400> 1308
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gagtcaatct tagactcttt taaagagaaa atggtcagta acctatcact acaaacaact 180
ggggatgcag ataagtattt gtgaaaaaca gaagttctgg agactggttc aaatctcagc 240
tacttcaatt accatgggac aaatgtactc ttctgaaact tcggtttcct catctgtaaa 300
atggagatgt agcaccttag agggctctcg ag
<210> 1309
<211> 232
<212> DNA
<213> Homo sapiens
<400> 1309
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gaatttaact gtgcctaact atagtttacc atgccacccc tttggggtgt gcagtgcagc 120
aggeceagaa eccettgett tgeaaaatge agetttttgt ggteeceaca ettgeetagt 180
aaccgccgtt ttgttttgtt ttgtgtttgc ttccagaact ccaagactcg ag
<210> 1310
<211> 209
<212> DNA
<213> Homo sapiens
<400> 1310
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aatttcgttc tgttgcccag gccctcgag
<210> 1311
<211> 128
<212> DNA
<213> Homo sapiens
<400> 1311
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ttetgtttet acaaagteet gtatteeeat teageatgat atggetgaat atgtgtgtge 120
tgctcgag
<210> 1312
<211> 368
<212> DNA
<213> Homo sapiens
<400> 1312
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<210> 1313
<211> 181
<212> DNA
<213> Homo sapiens
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ccctgggcaa gtttcctttg cacctcggtt tccccactgt aatagtagtg tgtccctcga 180
<210> 1314
<211> 164
<212> DNA
<213> Homo sapiens
<400> 1314
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taaacatggt cacacattcg tatttaagaa aggcggttct cgag
<210> 1315
<211> 125
<212> DNA
<213> Homo sapiens
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tcgag
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<212> DNA
<213> Homo sapiens
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<210> 1317
<211> 470
<212> DNA
<213> Homo sapiens
<400> 1317
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aggacaagga aatgaaacta etgaccaece tteaattttg tteeactatt taactgatga 180
gttattgcac attgtaaaaa aaaaaaaaaa tgcctattac aataccacac taccctgtta 240
cagatcacaa aataagggag aaggtattte catttttta acaaaatate aaactgttac 300
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getaaetaee tgetatteaa aggaaaagea tttagaaaaat aetgaaaaae aggtaaatet 420
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<211> 981
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (195)
<220>
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<221> unsure
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<400> 1318
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tgggatagaa gcaaacacaa attccttctg tagaaagaca cctttatcct agccctgaaa 180
taatactctc aaatantttt tctagggcag taagtaccag tcactaanaa taaccatgtg 240
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cctacaaaga ctttttatat tagaattata agacaactat acttattgtg tttaaagaca 360
taaaaggctg aaaacctctg caggaaacta cacaaagatt tgaaaaagtg tcaaaagaat 420
ttctaaaatg gaaagatata atatagaaat ttaaaaactt agtggatggg tggtttaact 480
aaaaaattgg ttagaatata ttatccagca tgtagcatag ggggttaaga ggttaaacac 540
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tttettattt etattggeca gecagtgtae ttttgettgg atgtttcaga aattatttaa 300
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<210> 1254
<211> 615
<212> DNA
<213> Homo sapiens
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gcctttctgc ctggtgaaag ctccagtgag gatgaagagc ctttagcaga attgtcaaag 180
gaagaattgt gcgccaaaat aaaaagcctg aaagaaaaac taacaaacac ccggaaagaa 240
aacagccgac ttcgacagtc tttggtcatg cttcaagtgt taccacaagc agtcacccag 300
tttgaagaat tggttggtat ggccgaggct ctgcttaagg gtgggggaac catgtctaca 360
tetgeateea ecetetggag ageaacaaac aacteetege cagatteatt tgeeteaaca 420
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cagactgatg agaaacagtt ccagattgaa aaatggcaga ttgcccgttg taacaagagc 540
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<210> 1255
<211> 454
<212> DNA
<213> Homo sapiens
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cccggaatat caagattcat ctttttcact aattgtggca ttcacagatc agaacataat 180
acctgaaaat ttgccagcac caacagacaa atgtaaacta aaatatcagc aatgtaaaac 240
tgaaattaaa gagggctata agcaytatag tcagagaaat gcagaaaata caaaatcaaa 300
tgttacacat aaacagtctc caagaaacaa gatagatgaa aagtgtgtgc aagatgaaga 360
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<210> 1256
<211> 682
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (130)
<220>
<221> unsure
<222> (143)
<400> 1256
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taaagccacn gaagtettta tgngccetet etgtgacaag aaetgeteee tgcagagaet 180
caacgacagc tgtatctatg ccaaggtgac atatttgttc gataatggag ggacagtctt 240
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gagtatactg acctatactt gggaccttat cgaatgggaa gaagaggagg aaacacttcg 360
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gtgtcacaac tgcacattgg tttcacagct gcaggacaag ttcgagcatc ttaaaatcat 180
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<212> DNA
<213> Homo sapiens
<400> 1328
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gagtcaaagg agacacacat cttttcaggc attacatata aaataaatac taaactagac 180
tccaggaaag tggtatcaat tcacattccc aatagcactg tcccaatggg gctaatttat 240
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<210> 1329
<211> 174
<212> DNA
<213> Homo sapiens
<400> 1329
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ctgctgttcc tggtcctgtt ttctgctctt tcgcagggtg cagttttggc ctctggggct 120
gttcctgagg ctccgggtgc agatcttgct gcggtcgctg ttcctgggct cgag
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<211> 476
<212> DNA
<213> Homo sapiens
<400> 1330
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cgtgcacgaa gaaaaggata ggaatatcac tcttctcctg aggggaacac ggacagacat 180
ggaagccaca tgaactgaag aaatccatca gagtaagagg aatgtcaggg gcaatacact 240
gaaaagggca ggtcaggcag agaattgtga aactttaatg ccaggctaag agggttcagc 300
ctctcctggg tttgatccag gaggcagaca gcaggacagc acctggtgat tttcaaacgg 360
gtaaactcct agtgttcagg aaaactcaat tccaatccca agtacagtcg gtaattttta 420
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<210> 1331
<211> 749
<212> DNA
<213> Homo sapiens
<400> 1331
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tcctggtaaa aagatcaata ctgctccttc aatatttctg aattggggac ttttatctaa 180
gtatgcaaga agttccaaaa tgagatccag gttgatttta tgaggattca tgtatagaat 240
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agtotgaact gggatgtatt octgatattt ttttattooc octgotttgo ttgtaacatt 360
aatggttact tettetteet etteeagaaa tttetgacaa tattetgagt ettttteeag 420
tacaaageet gtttetteta ttatatette aagatgaaaa aeeteaacag gataaettet 480
```

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teetgaaatt etgagaatgg ggeagtgtgt gaaatatgta gaaaattttt egetgteeae 540
agtggcactc attagaatca agtgtagatc agaacgtttc tgtaaaattt ccttcaagat 600
aattagtagg aagtetgaet ggacaettet tteatgaace teatetacaa taacatgaga 660
cacattactt agaagaccat cttcttgaag tttccttagc aaaacccctg ttgtacaata 720
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<211> 387
<212> DNA
<213> Homo sapiens
<400> 1332
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atgtetacat aataaaatga tacagaaaaa tgtecaggat ategtaatag aaaaaaatet 180
gcacacaaga gattttaagt caattttaaa caatattaag tctgatttta tttatgcaca 240
aaaataaaag ccagagtggc atcaccaaaa tgggagaata gaaagctctg gattctcctt 300
cctccaacag gcagtgctgc aataaacatc cctgtacact ccccatgtgt atatacacaa 360
atatttctct aagatagttc cctcgag
<210> 1333
<211> 698
<212> DNA
<213> Homo sapiens
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tttctcagtt ctagaattta tatttgttta tttttagttt ccagttctct gccaaaaatc 180
tgtettgtet tttateeeet tgaatgtggt aagtataatt attteaaaag tetgtatetg 240
agaattccaa tatctagagg ctgtttgaac catcttttct ttttcttgat gttgtttgtg 300
tatetgttte cagttgettt tgattataag ccagacattg catttgcaaa ctagaaacaa 360
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taggggcact agchatttag gaacceteaa tetaatttta gggaetgaca tgatteaaag 480
ctgatctgca ycctcagtga gagtatgtct actcctggtt aacccttgct cctatggtgt 540
agecetteag ggtettgact caaaatgagt tatgtteate aggtgteece teettagggg 600
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<211> 569
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (20)
<220>
<221> unsure
<222> (53)
<400> 1334
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gccaacatgg tgaaatccca tcactactaa aaatacaaaa aattagccag gtgtggtggt 120
gggcgcctgt aatcccagct actcgggagg ttgaggcagg agaatcgctt gaacccaaga 180
gatggaggtt gcagtgagcc gagattgagc cactgcactc cagcccgggc aacagagcaa 240
gatttgaatg aaataagett etacagtetg eteatgacat tattggtett tgagaaataa 300
gagttcatct agttacgctg aacttccaaa ggtggacacc attacattgt atattaaaat 360
```

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acagecetet caacttagga getggagtte etacataget gtacactetg aaggeateet 480
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tgtggactac atctgtaagc tgcctcgag
<210> 1335
<211> 571
<212> DNA
<213> Homo sapiens
<400> 1335
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ccagaagagc cagetteact eteteacece etetacacaa tetgaetaga aateetgttg 180
accetacett caatetgtgt etaggatgea acaceteaae atgtecacae ecceetteat 240
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ttacttgaaa taaaacgcca aagteettac aatggetgca gageeggaca acceaetgge 420
etgectaget gtetgacetg eteteceett cetetgttag etgeattgge etetgeaceg 480
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<210> 1336
<211> 370
<212> DNA
<213> Homo sapiens
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gettaacagt taaagacaga tttattgtag agaaaataaa cetgagaggg gettetggee 180
gatttcagtc aggagcactt tctcttacag actaagagta tatattggtt ttagggtgaa 240
ggggcttatt acaagcttgg aatguttett tgtgggggag aagttttacg gtggagttaa 300
aatgtetetg ggeagagggg aggetatett gggggetgaea tettteegge cagaagaggt 360
ttatctcgag
<210> 1337
<211> 326
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (27)
<220>
<221> unsure
<222> (320)
<400> 1337
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caggetaatt aatgateeca ggtgggetgg agtgttetgg ttacatttte catgggteea 120
gccctagagc agagaccatg ggcatcagcc tgccccttcc cattatgtgg ctcaagcacc 180
accacgtgcc aaagggcggg aacattagat ttccccaccg ctgtaacatc tgtaaattcc 240
acagtecata qaatcaaaat ggaagagaac eteaegttte tgattgeeag teagaaggaa 300
                                                                   326
tttatttttg aaacccaatn ctcgag
<210> 1338
<211> 617
<212> DNA
<213> Homo sapiens
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taatggctct ggtgggaaag acagcctgtg ggttctccct gatgtcttta ttggaaagcc 180
tggacccaga ctggacccct gaccagtatg attacagcta cgaggattat aatcaggaag 240
agaacaccag tagcacactt acccacgctg agaatcctga ctggtactac actgaggacc 300
aagctgatcc atgccagccc aacccctgtg aacacggtgg ggactgcctc gtccatggga 360
gcaccttcac atgcagctgc ctggctcctt tctctgggaa taagtgtcag aaagtgcaaa 420
atacgtgcaa ggacaaccca tgtggccggg gccaatgtct cattacccag agtcctccct 480
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tatgcaggcc aaacccctgc cagaatgggg ctacctgctc ccggcataag cggagatcca 600
agttcacctg tctcgag
<210> 1339
<211> 792
<212> DNA
<213> Homo sapiens
<400> 1339
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cttaacttcc cgggctcaag cagtcctccc agccctaagt aaccactaat ctattttctg 120
Ettetetete ttaatetet atatettate tgteeetgaa gtttetgetg gtteeecage 180
tatgettete tecaceccag ggteaactet ggggaggaga gatteaagga ggtacetgte 240
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tagaagaacc agacttggaa gcagcagagc agtttgcctc ccaggtccac agatgcttgc 540 .
ttgaatgagt gtctgagctt caggttettt tatetgtaaa atggtgataa tcaactttac 600
ctttcatggt ggttgtcaaa attaaggtaa cagaagggaa aacacctggt gttcaataaa 660
tgttaacttg aagggtgttc tttgttttgt ttttctgtga ttatgggaat aaattctgat 720
teteggattt ecaggtaaag atggaggatt gaacacetae tittgettee tetgaaaace 780
                                                                  792
ccatttctcy ag
<210> 1340
<211> 588
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (44)
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taagtcctca ggagagggag tggtgtgaga agaggagaga cggggatggc cgagattcag 240
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aggcatggtg gggacagett ggtcagatgc cactgagect caaggaaget ggagaccgag 420
gattagtgct ggtgacatgg aggttttcag cctttcatgg gcaaggcagg agcaggtaag 480
gagggaaagt caactgagga gtagagaagt gtgtgatgac tcctggaaga agcctgggac 540
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<210> 1341
<211> 628
<212> DNA
<213> Homo sapiens
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gtaacaggcg gttctactgt acactgtatc aaagtttagc tgcagtgagc tatttgtcat 180
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aggageetet eetgegetta caacacaact eeaategeac egagaagtgg gatteatggg 420
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aggtgaaaat gaatcacgta tetgcataaa aatgteettt teattgeact acqggtgeca 540
egeteattgt gaaccecagg etgaatcact caegtgtaca eetgeggaca tgeatttaca 600
caccgacaca cacacccact aactcgag
<210> 1342
<211> 280
<212> DNA
<213> Rattus sp.
<400> 1342
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geactggacg etgaceggee geaceatgag aetecteece egeetgetge tgetttteet 120
getggcette ceegeegeeg tgetgetacg aggeggeeee ggagggteat tagetgtgge 180
tcaagatctt acagaagatg aagaaaccgt agaagatcca ataatcgagg atgaggatga 240
tgaggctgaa gtagaagaag acgaacccaa cagactcgag
                                                                  280
<210> 1343
<211> 569
<212> DNA
<213> Rattus sp.
<400> 1343
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ctcacagece geetgacece ettegacete ttegeceaca teteceaaca etccaactte 120
caacaacaat ggcaaagcte ggattatgcg ctggattggg ggtctttcta atatgctcaa 180
gegteatett ggteetette geeeagetet etéaagéeae gggeggagea aeggttetge 240
ggcatcttca aatgtccacc attgacacta caggcctagg cagccagctg gcctcgtctg 300
gegtegatac etegtecete taeggeteag gtteeegate gggegacaac aegggtetee 360
gccagtacta cagctacggc ctctggaacg cctgcgaggc ccccaccaag tcgggcacca 420
gcgacgtcta ctgccagggc gccaagtttg gccgcaaatt cgaaccctac aacgccatcc 480
tegetgatge eccategagt geceaaaceg ecategeeaa etegettgge aacaceaact 540
ttaccaagaa caaggcaggc accctcgag
<210> 1344
<211> 547
<212> DNA
<213> Rattus sp.
<400> 1344
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gatteagatt getetteace acaagatett eeagagaaga geeateactg ataacaaggt 120
cattaaactg gtcttggatt tggtccatag tttgtgggag atctcgggct ggaataaacc 180
atteatgtte ttetteetet teeageattt ettggaaaca gegtteaata aattettett 240
cccacaactc ctcttctatt tgtctgttga attcctcttc attttccatc cacatgtact 300
ctgcaaatgg attatectet teatgagaat gacegttaat aateacateg teattgatga 360
tgcttgggct agtactgctg cgacttggat ctttcatggt tggtgttcgt tgtcgttttt 420
aacccagtgc acggcagcgg ggacggtagc caacgaatcc tgtcggcctc cgcggatctc 480
cacaggcage geogeteece egetegacgt gegetttgee egeegeetee etteteeetg 540
cctcgag
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<210> 1345

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<211> 389
<212> DNA
<213> Rattus sp.
<400> 1345
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cggtgcgagc gggatggctg cggaagaaga ggacgaagtg gaatgggtgg tggagagcat 180
egetgggtte etgaggggee eggattggte tatacetate ttagaetttg tggagcagaa 240
atgcgaagtt tttgatgatg aagaagaaag caagttgacc tatacagaaa tccatcaaga 300
gtacaaagag ctggttgaaa agctgttaga aagttacctc aaagaaattg gaattaatga 360
agatcagttt caagaagcac gcactcgag
<210> 1346
<211> 581
<212> DNA
<213> Rattus sp.
<400> 1346
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cgggcatcgc agagcgcgag tgcggagctc ggagcgcagc acgatgggag gggagcagga 120
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acagaaggcc aggagagaga agcgagctcg gcaggagaca gagcgtcggg agaaggcaga 360
gcgggcagcc aggctggcca aggaggccaa ggcagagact cccgggccac agatcaagga 420
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gaaccatgag gtgcagctta agaacggcag tcttgactct ccagggaagc aggatgctga 540
ggaagaggaa gacgaggaag acgagaagga cgccgctcga g
<210> 1347
<211> 119
<212> DNA
<213> Rattus sp.
<400> 1347
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agatgcccae agtgctggac accegetgtg eccegecagg gacetecece caactegag 119
<210> 1348
<211> 443
<212> DNA
<213> Rattus sp.
<400> 1348
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cocgcetget getgetttte etgetggeet teecegeege egtgetgeta egaggeggee 120
ccggagggtc attagctgtg gctcaagatc ttacagaaga tgaagaaacc gtagaagatc 180
caataatcga ggatgaggat gatgaggctg aagtagaaga agacgaaccc acagacttgg 240
cagaagagaa agaagaagaa gaagatgtgt ctagtgaacc agaagettca eegagtgcag 300
acacaaccat totatttgta aaaggagaag attttccagc aaacaacatt gtgaagttcc 360
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tccgttatcc tcaggatctc gag
<210> 1349
<211> 395
<212> DNA
<213> Rattus sp.
<400> 1349
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ttttggtcat gtccttgttt cttcttttgt ccagcctgct ttttggcatt tttctgctga 180
gactgaatet tetgetgtee aegageeata teegggeegg gacggagtgg egteeggagag 240
acggcgcagc gcgagaagag ctgagcagga cgagcaggga aggaagggtc gagccccgca 300
ccgettgggg ceteegecae ccgcagagga aggaccgage agagecggga gcacaacage 360
cogogoctog cacaccogoc geagegegeg coegg
<210> 1350
<211> 161
<212> DNA
<213> Rattus sp.
<400> 1350
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cetttttet gttgccaaaa gaaaactget tttccactaa tttgtteett tcaagcattt 120
taaatatgac aatatttaat attaaatgtg tggtttggag g
<210> 1351
<211> 363
<212> DNA
<213> Rattus sp.
<400> 1351
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ccaaggaaag tgtacgacac acgggatgat gaccggacag caggcgttca tggagattgt 180
gacgacgaca aataccgccg ccggcctgct ctaggctggc tggcccagct gctcaggagc 240
egggetgggt eceggaageg gecaetgaet etgeteeage gggeaggaet getgeteetg 300
ttggggctgc tgggcttcct ggcgctcctc gcccttatgt ctcgactcgg ccgtggactc 360
psp
<210> 1352
<211> 322
<212> DNA
<213> Rattus sp.
<400> 1352
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cacctatggg gctgagtgcg acceggectg tgaccctcag catggattct gtgaggctga 120
caatgtctgc aggtgtgagc ctggctggga gggccccctg tgtgagaagt gcgtaacctc 180
ccctggctgt gttaatggac tctgtgaaga accatggcag tgtgtctgca aggaaggctg 240
ggacgggaaa ttctgcgaaa tagatattcg ggcttgcacc tctaccccct gcgccaacaa 300
tgggacttgc gtggacctcg ag
<210> 1353
<211> 357
<212> DNA
<213> Rattus sp.
<400> 1353
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ttgcttctgc tgttcctacc cgaggttccc agagcagcca ctgcgtccct gccgcaagga 120
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cgctacttcc tcgtccgaaa tttgttccca acctggctga tggttatgga aatcatgaac 300
atcactetgg tgccctacgg gaacgcacag gagagaaatg tcagcggcac actcgag
<210> 1354
<211> 336
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350

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<212> DNA
<213> Rattus sp.
<400> 1354
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acceccatet cactaattee catactaate atcategaaa etateageet atttatteaa 120
cegatageac tageagtacg actaacagea aacattacag caggecatet attaatgeat 180
ctaatcggag gagctaccct agtacttata gacatcagcc cacttcttac cgcaaggaac 240
ccccatctca ctaattccca tactaatcat catcgaaact atcagcctat ttattcaacc 300
gatagcacta gcagtacgac taacagcaaa ctcgag
<210> 1355
<211> 488
<212> DNA
<213> Rattus sp.
<400> 1355
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ctctcctatc egecttgetc tttctgttcc ttcteggecc eageteggtc cteggcatct 120
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<212> DNA
<213> Rattus sp.
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<213> Rattus sp.

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<212> DNA
<213> Homo sapiens
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ctcagtggat tattcagcag totottotot goocccatat toccotocca ccacagccag 180
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<212> DNA
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<212> DNA
<213> Homo sapiens
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<211> 343
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cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttcactgt 180
caataatgtt gcaatacata tctttttgag agatagggtt ttaaattttc tttattttga 240
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<212> DNA
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<212> DNA
<213> Homo sapiens
<400> 1365
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cgttcagcat ggagagaatt cacagggccg gcgaggatgg cagggatggc ccccttggat 180
gactttactt ccacggatgc tgccctgtca gggctcaccc aatgctttaa aaatcaacgt 240
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<212> DNA
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ggtacgtctc ccccaaactg atcatcgtta gggtgttaaa cacagacgag gaaacacacg 180
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gttggggttt ttttttaat attgtgaaat gtacaccatg aaatgaaagg tttatcctgt 420
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<212> DNA
<213> Homo sapiens
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aaggaacctt agagatcact tactctaatc ettttatcaa caaagaactt gaagtttgga 180
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aaataatcat geeagggtag eeaaatagaa geaactttgg ggtttttgea gagteaagte 360
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<212> DNA
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tactgtccat ggagetggtg gtcaaggtgg acagggggeg gtggtgatgg cgcagtttga 180
cactgaatac cagcgcctag aggcctccta tagtgattca cccccagggg aggaggacct 240
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<212> DNA
<213> Homo sapiens
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aatgetattg tittetitet tittgattit teetatgtae agteattice aatataatae 180
tatttttaat gcagaggttt taattcactt aaaaaatgaa aacatagtag ataagtgtga 240
gagcagaagg ctcgag
<210> 1371
<211> 244
<212> DNA
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attgctcaat ttgtaattta gctttgcaat gaaagettet aacagttacg cettgtettg 180
gtacattgtt gtttcaggct tattagtttg cacatgtttt agtaatacaa ccaccggct 240
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<213> Homo sapiens
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aactggatgt acttagcatg tittctaatt ctgactggct titgttaact tgataattct 180
tcatctacct taaaaagaaa aaaattacac atagtcattc ttgatgttat aaatagagaa 240
aaagtgtgtg tgagcaataa tgcataagct actgataact tgcttacagc agatagcaat 300
aaggtatttg gtggcattcg gcttgttttg taatagggat tttttttttg gttgaccact 360
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<212> DNA
<213> Homo sapiens
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accatggcac atgtatacct acgtagcaaa cctgcatgtt ctgcacatgt atccgagaac 180
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<211> 246
<212> DNA
<213> Homo sapiens
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gggttaaatc tetezeatet etatteecea atagtgtagt aactgtggat aaateetttt 180
ggagtgctag gtctcctttc tcccacatct aaaatagtat ttattatgca actccgactc 240
ctcgag
<210> 1375
<211> 365
<212> DNA
<213> Homo sapiens
<400> 1375
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gataattgga cttaacaaag tgaaaaattg gtatcaccag gatacttggg aggcattacc 240
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tcgag
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<211> 257
<212> DNA
<213> Homo sapiens
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cctgcttcct ggccgctggc atcttctggg tgtccatcct ctgcaggaac acgtacagcg 180
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<212> DNA
<213> Homo sapiens
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caccctaccc cagcagagcc cacctgaagt tcctgttgtg agaattactc ttgtcaccaa 120
aggecattgt ctccagaagg ccactgtacc ccagcaggga gagtggagct tggacaccct 180
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<213> Homo sapiens
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agtagagaag tcaaagggat tatgtgatgg agatgagttt tatgccaaga taaggcttga 180
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<212> DNA
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<212> DNA
<213> Homo sapiens
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tttgctagct caatgtattt tgaaacctta atttaaccaa tatttcttga ggggccctta 240
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<210> 1381
<211> 349
<212> DNA
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<213> Homo sapiens
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acagetacag ttcagetgca tectacacag atagetetga tgatgaggtt teteccegag 180
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cagaatttgg acgccgggag attgagattg cagagcaaga catgtctgct ctgatttcac 300
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<212> DNA
<213> Homo sapiens
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aatgtcattt gtttttgttt ttgagacagg gtctcactct gttgccctca ctggagtgca 180
gtgggatcac ggctcactga agtctctacc taccggctca attgatcttc ccaccacagc 240
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aaacctgtat ctcgag
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<212> DNA
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ttgatgtgct teccecttag egtececete ectetgetee tectecttca geetggtete 180
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cccctactcg ag
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<211> 429
<212> DNA
<213> Homo sapiens
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gtgaatgaag agaggcgtga atgaatgaac aattgaatga attttcaaat gaaaaaagct 360
aaaaactaga taggtototg acctttattt cotacacaca catttgtcaa ctacaacctg 420
atactcgag
<210> 1385
<211> 500
<212> DNA
<213> Homo sapiens
<400> 1385
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cactccagcc tgggtgaaag agtgcaactc cgtctccaaa aaaaaaaaca aacaagaaaa 120
aaccacaaca aactgttgtc tgttaactaa caaaatgagt atgaaacatg ttatatgttc 180
tgagttetet attaacatca acattgtgtt ccaaatttgg tgtttgeeta ggaatggaca 240
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<212> DNA
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<211> 144
<212> DNA
<213> Homo sapiens
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<210> 1388
<211> 242
<212> DNA
<213> Homo sapiens
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tgtcctttat gttcttgtcc tttcctcatg ataatcaaat cataattaga aataagatgc 180
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<211> 240
<212> DNA
<213> Homo sapiens
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acgttttatt gtttacttat tagcaccctg cttattccaa aaatagaatt tgatatggtt 180
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<212> DNA
<213> Homo sapiens
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gaggctggaa ggggttaagc cagaagtgca atcaatagga attagggaat gttgtatatt 180
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<212> DNA
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<211> 167
<212> DNA
<213> Homo sapiens
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<210> 1393
<211> 244
<212> DNA
<213> Homo sapiens
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caggaggcac cagcccggtg tgaggggggg tgtgtggtgg gcagggaaga ggtgcaggga 180
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cgag
<210> 1394
<211> 290
<212> DNA
<213> Homo sapiens
<400> 1394
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gtteteetge actettetga ttetgtatet ttacatetag attattttta ceteetaggt 120
tettteeete tteattaeta eettataaaa atacateeat tetteaaata tttteeeaat 180
ctcccagtaa gaattagcct ctctcaatgc tggtgcagtg gctcattcct gtaatcccag 240
cactttggga agccgaggca ggcagattgc ttgaacccgt gagtctcgag
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<210> 1395
<211> 286
<212> DNA
<213> Homo sapiens
<400> 1395
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ggctgcaggg ccccacgaag ggacattgaa gacattcctt atgtgtagtg tccctggcag 180
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gttgctagca gccttttgac ctatctgcaa tgcagtgaga ctcgag
<210> 1396
<211> 266
<212> DNA
<213> Homo sapiens
<400> 1396
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cacagaatte tttateteee tatecaacee tattgecatg cecaceaaac ttgaaceeca 120
ttettteeet etegggaaat attaccacaa getacceggt tgetecagee aaaaacetae 180
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gttggtttta cctccaaaat ctcgag
<210> 1397
<211> 568
<212> DNA
<213> Homo sapiens
<400> 1397
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cocctctcat getetacaac etttgeactt ggtgteeect gtgeetggtt teccetttee 180
ctgcaaagcc acatggctga cctctccctt tcaggtttga ttggtcacct tctccgtgaa 240
geotecetag ceattetgee tetgatteea ecceteteae etagecaeet ttecattttt 300
tttttctcac cactcatcac ttgctaacta acataggtca aaggtggctt ttttctttgc 360
ttttaagatg caagatattt gatatgttta tgttgagaac taggagatga cagagaagga 420
aaagttgaaa acacaggcat gagaagagtt gatcgttttg cagggtcttg aagaagaagg 480
tgggagatga atcagagcat aagtggaagg taaggccaag gaagaacacc tecteteete 540
tecectecce tecectecce egetegag
                                                                   568
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<211> 370
<212> DNA
<213> Homo sapiens
<400> 1398
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aggtaggggg cacagttagt totaagtggg ottttatgot aaaagcotot ggggatatot 120
gttttgaaaa taaagatagg tgtcccctcc ttgctgtcat ctagcccaga cactctgctt 180
gctctctggc tgtctgctcc ctgggaaggc tttaggagga ccacccagga caggatgacc 240
atgetgeeat etgetetgga getgggtete agtgeagagg gaeagtgaet gtggatggtt 300
gcagtctctg gtgggaggtg aggatagaag tgataaagag ctaagaggag cttctgggtc 360
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<211> 347
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (39)
<220>
<221> unsure
<222> (116)
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<222> (127)
<400> 1399
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agagacntga aagggatcgt gtaactacta gtttgtacta agttttttc aagaaaggga 180
aacaaattta tatatata tatatatata tatgtgcaat atatttttac actgtgtgat 240
taacattagg gagteetggg cacategaga tgetttaett etttetteg acetettaaa 300
aaaactaaac caagccaaac cacaaaggaa atctgcacaa actcgag
<210> 1400
<211> 292
<212> DNA
<213> Homo sapiens
<400> 1400
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ttctgtgtgc atgtggaact tctccattta caaggtgctt ttaagtcata aaacgttggc 120
tettaceatq caqqqqtqqq eqqtqtqqct aggtggatge gggtgetttt egecateeet 180
tetgattete tetageaatg gategtggge aatggacaeg caatateteg ag
<210> 1401
<211> 213
<212> DNA
<213> Homo sapiens
<400> 1401
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ctaatttaga tgagtaaatt caacttaagt ctgtgtgtaa aatgagtaga aaataggtct 120
tttaaagaac ttaactcatt aattacgtgc taccattcct gagaggaaac atggggtcct 180
                                                                213
ggggaaatgg agtaggtgag gaagtagete gag
<210> 1402
<211> 242
<212> DNA
<213> Homo sapiens
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tegeetetgt ttggggeaac ttegttaata tgaggtetat ccaggaaaat ggtgaactaa 120
aaattgaaag caagattgaa gagatggttg aaccactaag agagaaaatc agagatttag 180
aaaaaagctt tacccagaaa tacccaccag taaagttttt atcagaaaag gatcagctcg 240
                                                                242
ag
<210> 1403
<211> 270
<212> DNA
<213> Homo sapiens
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aaaatccaga tgtcatattc agtaaaatgg aaaaagtcag atgtgaaatt tgaagatcga 120
tttgacaaat atcttgatcc gtcctttttt caacatcgga ttcattggtt ttcaattttc 180
aacteettea tgatggtgat ettettggtg ggettagttt caatgatttt aatgagaaca 240
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<210> 1404
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361

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<211> 232
 <212> DNA
<213> Homo sapiens
<400> 1404
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gaaattaatg ttaaccgata ttttactaca cacctacaaa cagatgctaa tggataaata 120
ttgtgtttca tttatttat tttatttatt tagttttcca agacagagtc actctgttgc 180
ccaggetgga gtgcaatgge ttgatettgg ctcactgcaa ecceegeteg ag
<210> 1405
<211> 429
<212> DNA
<213> Homo sapiens
<400> 1405
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gatcaaaaag gcagactgta aattteetta agacetaeet tggcataaag getgaeeeag 120
caaaagaact gagaaataca geetgagatg gacagcagta attgcaaagt tattgeteet 180
ctcctaagtc aaagataccg gaggatggtc accaaggatg gccacagcac acttcaaatg 240
gatggcgctc aaagaggtct tgcatatctt cgagatgctt ggggaatcct aatggacatg 300
cgctggcgtt ggatgatgtt ggtcttttct gcttcttttg ttgtccactg gcttgtcttt 360
gcagtgctct ggtatgttct ggctgagatg aatggtgatc tggaactaga tcatgatacc 420
ccactcgag
<210> 1406
<211> 235
<212> DNA
<213> Homo sapiens
<400> 1406
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caacttgatg catggggact gcatggccct ccctgcgccc aggcctctga caggagtgga 180
gggttgcagc agtcactggg tggccaagaa ctcatttcat ggcggtgaac tcgag
<210> 1407
<211> 479
<212> DNA
<213> Homo sapiens
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acaaagtgct gggattacag gtgtgagcca ctgcacccag tcacatgtcg tattttaaaa 120
gggatttaaa agtatcattg gattgtttgt aacacgaagg ataaatgctt gaggggatgg 180
atacccatte tecageatgt catgattaca cattgeatge etgtateaaa acacctcatg 240
taccccataa atatatacac ctactatgta ccacaaaaat taaaataaat ggtgggtgag 300
aagaaacact gcatacggtt tcaaaaccat cagagaggcc atgggaaaaa ttttaaaaat 360
atatttacga agtgaaacag ccattctaag tatgacacca aacccataaa cttgaaaaga 420
ccgatacatt ttactaaata aaaataatgt ttttgtatag caaaaccaat catctcgag 479
<210> 1408
<211> 234
<212> DNA
<213> Homo sapiens
<400> 1408
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gtcttctgat ccttcaccag cactgccctt aatgctccag tcatgtcaat acagaccatg 120
ctcctagcca acctgctcct ccaaattctt ccagcctctg cccattatcc agtttcaaag 180
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                                                                  234
<210> 1409
<211> 209
<212> DNA
<213> Homo sapiens
<400> 1409
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tttaagaatt taataagtta taattttata acttaaaaag aaatatgctc ttactttaca 120
ttaaatatta tacagtaata tttcctctcg tgattttttg ttctcctagg ttatctagag 180
gtacaatatt gttaaacacc ccactcgag
<210> 1410
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1410
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aaataattgc cggaatgata tcctctaaaa gatgtgagcc tctcagagag agagagagag 120
ggttcctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc ggttccagcc gtgtcaggga gactcgag
                                                                  218
<210> 1411
<211> 321
<212> DNA
<213> Homo sapiens
<400> 1411
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ttytgaatca tataggagag aggacaggag atgaggtgga aaaggtagat ttggaccaag 120
tettgaagga etttagtgta atgetgettt tteetttagg aacaggtggt gaggagtttg 180
ataagatttt aagtaataga atcacatgct taaatctttg tttttagaat agcagtcatg 240
gtgataatgt ggaagacatt ggctttgtgc ctagaggcaa ggggacttgt agagtgattc 300
agtaaagagg actatctcga g
                                                                  321
<210> 1412
<211> 228
<212> DNA
<213> Homo sapiens
<400> 1412
gaattcggcc aaagaggcct agactggata gattcaattg acctatttct gagttctcta 60
attettett etgeetgete agatetgeta ttgageeage cactetagtg aattteteat 120
tcaattatta tacttttgaa atctagaatt tctqtttcqt cctttaaaac aaatctttat 180
attttctatt taatgaggat ttgttcttgt gctttccttt gtctcgag
<210> 1413
<211> 198
<212> DNA
<213> Homo sapiens
<400> 1413
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cacatgetgt teateactet ceteetettt acetggatge etegtgeetg tgeeteecga 120
cctccactga gacaatgtca cctccaggaa gtgcccctca caatcctctc ctcccacaat 180
accetgtece gactegag
                                                                  198
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<210> 1414

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<211> 241
<212> DNA
<213> Homo sapiens
<400> 1414
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tgcttgcctg agtgcctgct ctttgagcct cctttacaca cttcccagtg gcctccatcc 180
tcacagacac tgctcaccag tgggcacttg caggaccage acttacttcc cctctctcga 240
<210> 1415
<211> 210
<212> DNA
<213> Homo sapiens
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atccaagaaa ccattgccta acacaagtca caaagatttt agagaatttt ttaaaatgtta 120
ttttattcat ttatcttaca ctttatagct cattctgctg tatttttaaa aaggcagatc 180
cttcaaggac aatacatagg ggaactcgag
<210> 1416
<211> 216
<212> DNA
<213> Homo sapiens
<400> 1416
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agaatgtcag cttcatactt accagcactg tttattttaa tatttttcc tgttatatgt 120
aatatacata acticaaago acatoogtao aaacotoota caagotgoac ottoataatg 180
agaaaccata agcatacaat gtctacttcc ctcgag
                                                                  216
<210> 1417
<211> 309
<212> DNA
<213> Homo sapiens
<400> 1417
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agagetaaat tettttttgg aaaattgaac egaaetteta etgaatacaa gatgaaaatg 120
tggttgctgg tcagtcatct tgtgataata tctattacta cctgtttagc agagtttaca 180
tggtatagaa gatatggtca tggagtttct gaggaagaca aaggatttgg accaattttt 240
gaagagcagc caatcaatac catttatcca gaggaatcac tggaaggaaa agtcccacat 300
caactcgag
<210> 1418
<211> 230
<212> DNA
<213> Homo sapiens
<400> 1418
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tttccattgc tggccacact cactaaacta aattataact ctttgcttcc atattttcat 120
catattaaat gettgeacte ttttttett ceatttttac tateceagtg teetgtttee 180
cagaggaaca gttcatttca acagccaggg agaaagctgg gatgctcgag
<210> 1419
<211> 363
<212> DNA
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<213> Homo sapiens
<400> 1419
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cocacctggc caggagacgc teterggete etertgeetg getggtgcca cetgaccgtt 120
gaagatggge coogggagat cotgateaag gaaggggeee cotegettet gtgcaagtat 180
ttcctgcagc agtgggaact cacateccet ggccacgaca ceteggtget gcctgacagc 240
gggctgatca agcgtgacgc ctgcttcaca tctctaatga acaccctcat gacgtcgctc 360
gag
<210> 1420
<211> 366
<212> DNA
<213> Homo sapiens
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gcagttecta tgagatetee cagaaaccaa ggattggggt caccetecag tgacaaacag 180
aatccaacac etteteeett etetgetget gteetetget ecageetett eeetteeece 240
totagcattg ctaccttctc tcctacacgc acgcaggcat ataaacgtag gtttttgatg 300
ctcctctgcc tgttgacccc gctattttca tgtttccaac aggtttttct tccccacccc 360
ctcgag
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<210> 1421
<211> 431
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (52)
<220>
<221> unsure
<222> (193)
<400> 1421
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agaagetett geeetgtagt tecaaggeag geetetetgt getgetgaag geagateget 180
tgttccacac canctaccac tcccaggcag tgcatatccg ccctgtttgc agaaatgcac 240
gctgtactag catctcctgg gagctgaggc agaccctgtc agttgtattt gatgccttca 300
tcacggggca gggaaagaaa gactggtccc tcttccggat gttctcccga accctcacgg 360
agecetgece eetggettea gagageegag tetatgtgga aateaceace tacaaceagg 420
actggctcga g
<210> 1422
<211> 252
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (35)
<220>
<221> unsure
<222> (39)
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<220>
<221> unsure
<222> (74)
<220>
<221> unsure
<222> (105)
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ttttaaagaa aatacagtat tcattctaat tcaggtgtct acttatttta tgtaagaata 180
attttagatt tecceccae catgaagttt ettectattt tettatgetg taacttacce 240
cccatactcg ag
<210> 1423
<211> 223
<212> DNA
<213> Homo sapiens
<400> 1423
gaatteggee aaagaggeet acceetgett teteetaaat taeteteeca aaggteacca 60
aaggaccacg tggtcatcac atttgatgac cttctctcca tttttaccct ccttaacctc 120
tetgtgtttg atattgtcaa ccaetgteee ttteatgagt eeetgtttee atggegatgg 180
tgacattgta ctcttccagc tcttaaatcc tcctgaactc gag
                                                                  223
<210> 1424
<211> 409
<212> DNA
<213> Homo sapiens
<400> 1424
gaatteggee aaagaggeet agggeagega gatggaatea geaagagaaa acategaeet 60
tcaacctgga ageteegace eeaggageea geecateaac etgaaccatt aegecaccaa 120
gaagagegts geggagagea tgctggaegt ggeeetgtte atgteeaaeg ceatgegget 180
gaaggeggtg ctggagcagg gaccatecte teactactae accaecetgg teacecteat 240
cagectetet etgeteetge aggtggteat eggtgteetg etegtggtea ttgcaegget 300
gaacctgaat gaggtagaaa agcagtggcg actcaaccag ctcaacaacg cagccaccat 360
cttggtcttc ttcactgtgg tcatcaatgt tttcaccaca gacctcgag
<210> 1425
<211> 241
<212> DNA
<213> Homo sapiens
<400> 1425
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cacagggete attigtites ettiteteat ggatetqagt ticacaagag tgaaacteeg 120
gctcaaaaaa aagggggttt tattcgaaca acatacaaac acacaacaga atgcttcata 180
agtcacttta aacaataaaa tagacaataa taacatacat atttttataa gcatactcga 240
<210> 1426
<211> 231
<212> DNA
<213> Homo sapiens
<400> 1426
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tggccacagg agacaacgtt gaggtacaga caggtggcag agaaacaaac atcggtattg 120
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cttaaaccac ttgctatttc cagttccggc ttttgctagg tctaccataa ccaaataccg 180
cagattgagt ggttcaaacg ccagagattg atattctcgc aagtactcga g
<210> 1427
<211> 298
<212> DNA
<213> Homo sapiens
<400> 1427
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ccactgcctc tgtctccagg aagcagaggc agaagtgatc cttgctgagg agggccatcg 120
agteteeget taaatgeeag cacagagaga geactgeaaa gtegeettee eeaggeacet 180
gcaccgacat gcagcccgct ggggaccaca ggtagagcct gctgcctccc gtgcagatgg 240
ccagccgcgg ctgctgcggg tcccactgaa acgcgcgcac tgggggacagc tgctcgag
<210> 1428
<211> 161
<212> DNA
<213> Homo sapiens
<400> 1428
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aacetttaaa taattteaaa gtagacaaaa tgtttetaae tttetteate aaaageatat 120
tttgcttttg tttatacact gtttttttaa ttccactcga g
<210> 1429
<211> 258
<212> DNA
<213> Homo sapiens
<400> 1429
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atettaacty caggatggag ggtacagagt etgectacat cageteettt gtetgtttet 120.
cttccgacaa acattgtacc accgaccacc atctggacta getctccaca aaacactgat 180
gcagacactg cotecceate caaeggeact cacaacaact eggtgeteec agttacagea 240
tcagccccaa cactcgag
<210> 1430
<211> 288
<212> DNA
<213> Homo sapiens
<400> 1430
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cttctgggtc ctgctgtccc ccaggagaac caagatggtc gttactctct gacctatatc 120
tacactgggc tgtccaagca tgttgaagac gtccccgcgt ttcaggccct tggctcactc 180
aatgacetee agttetttag atacaacagt aaagacagga agtetcagee catgggacte 240
tggagacagg tggaaggaat ggaggatttg gagtatcagt cactcgag
<210> 1431
<211> 231
<212> DNA
<213> Homo sapiens
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gctttggggg ccttgcttcc attttccatt attatgtgga ctaccggagc gacagcgcag 180
tecaagaeet tgeaggtttg tgatgaggag ggagcacaea geacaetega g
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<211> 221
<212> DNA
<213> Homo sapiens
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accetgtgca gaagggaget ggetecagee tggaaacetg tetgaggttg ggagaggtge 180
acttggggca cagggagagg ccgggacaca caatcctcga g
<210> 1433
<211> 332
<212> DNA
<213> Homo sapiens
<400> 1433
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aaggtgatca gagcetgtta attaaaatgg aaagaagaca gaagggaagg tagacatcag 120
gttctccctg gagacttttc gttttcattt acgctgcgga aactgacgtt tttgcctaac 180
accccatgta atgraaacgt ataggettga gtacgtgtcc ggeegeatgt gtagtgaacc 240
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<212> DNA
<213> Homo sapiens
<400> 1434
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caccaatata ttcacctagt gtgtatggaa gtgtccattt ttgtcatacc cctggtaacc 120
ctgtgatatt attittaaac attitgetaa tggatetetg tticttgtttg aatgtattta 180
atttccagca gaatgagccc cattctctcg ag
                                             212
<210> 1435
<211> 398
<212> DNA.
<213> Homo sapiens
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catecttgee taccetgaga gagetttaac etactgtggg cagecatgaa gteetteece 120
aactaaaacc atgcaacctt ccatcaagga aggtattctt taggtgtcct gcactttcag 180
ttttcttttc ctttttttt ttttttttt tttaaggagg acgattctgt tctctatctc 240
tgggtttttt tcctgaaggt tttctgagtc agaataagaa gttcatcaga aaccattttg 300
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<210> 1436
<211> 398
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (88)
<400> 1436
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tgtgatgcca ccgccgctac ggggaagtaa tggtatccgg ccaattgaga ttcggagtta 240
aaacagggat gtgcagatgg aggtcggagg agacactgct gccccggccc ccgggggcgc 300
ggaggaettg gaggaeacge agtteeceag tgaggaaget agagaaggtg gaggggttea 360
cgcggtcccg ccggatcccg aagacaagga cgctcgag
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<211> 426
<212> DNA
<213> Homo sapiens
<400> 1437
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tacattttga ctaccacac tcaacggcta catagaaaaa tccaccctt acgagtgcgg 180
ettegaceet atateceeeg eeegegteee ttteteeata aaattettet tagtagetat 240
taccttctta ttatttgatc tagaaattgc ceteetttta ceectaccat gageeceete 300
accaccaccc tggccaccgc atgcctcatc ctggcatcaa cgagcacccg ccttgggctg 360
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ctcgag
<210> 1438
<211> 509
<212> DNA
<213> Homo sapiens
<400> 1438
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ggcagatctg agtgtctgta ggagttgcta ttccaaaaaa aatcattact ctctaattgt 120
tctgatttta gatcaccaaa gcgtgccggg cggtggtgga gagactgagg gcggacaagg 180
cgagagggaa cgagccgtcc accettegga gaagcctagg cgccttgtaa gtaattegeg 240
aacagtoggg agaacaaaca gccaageggc gctgcagtgg ccgcacttgc gcgcgtctca 300
atcetggggg etetgegege eegeeeeagt eeetegeeee attgacteag tggettetee 360 😁 👉 🕟
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ggagagggag acgeccggg accgacgaac aatcctgecc ctgcggcaaa ggtctctacc 480
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<210> 1439
<211> 376
<212> DNA
<213> Homo sapiens
<220> .
<221> unsure
<222> (270)
<220>
<221> unsure
<222> (280)
<220>
<221> unsure
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<220>
<221> unsure
<222> (304)
<220>
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2011 2 Just 2 3 4

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<222> (349)
<220>
<221> unsure
<222> (352)
<400> 1439
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accepttet cettatgeec acgggeatgg gaaaggagge tgcatttgtt gtaaaaaacg 120
aggttetttg tacaatggtt geacgttact tegatgegea egeteegtet gtegtagtge 180
tgggtcagac tcttttcaag tgcaaaggag tccccacact ccaagcactt gtacccacgc 240
gtcggtaacg tgatccctgc attggcgggn ggactgaggn ttgggatgna aacagggact 300
ggantgacac tgctcagcac cttgttgaaa gcttccacca cagaactcng cnaggacgac 360
accacctgga ctcgag
<210> 1440
<211> 449
<212> DNA
<213> Homo sapiens
<400> 1440
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ggctcatcgc tggaagggtc tgtgggcagt ttcaccaaga cttcattcag gaaaatgggc 120
gttttataca ttttgaattg agcattggac ttcgagctga aaagtttctc agagccagag 180
gaaacagcaa actgcttgac catgtaggta agaagcagga agtcattgaa gaggaatccg 240
tgcagttcct tgttgctctt ggtcttgtat aatttcccac tgtgtaagag cttccggggc 300
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tgcqcctgga tccactccag tcggtccgag ttttccttct cccgaactcc ctcattcact 420
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<210> 1441
<211> 316
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (298)
<220>
<221> unsure
<222> (308)
<400> 1441
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attotgattt taaccaactg gttctgatta tatttaccaa aactggagtt aacttctctt 180
teettatact ettetetee tateeeetac teacacegag gettaacage aaceteagat 240
ctcatccaat ggacagaaac aaatgttaag caacttgtca tctcactcat gatttacnta 300
tgctaatngt ctcgag
<210> 1442
<211> 251
<212> DNA
<213> Homo sapiens
<400> 1442
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ttctgtattc tgtatatact ttatggtgaa cactttgtgt ttgaatattt gtgtgccaaa 120
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tgaagcctgt tttgtctaaa ttcctatttt gcaaggtgca gtcatctctc tctttctctc 180
tgtttttctc tttcttctg tctctctcag cctctctctc tctcagtgca tgcggcaggg 240
gctcactcga g
<210> 1443
<211> 265
<212> DNA
<213> Homo sapiens
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agggcattca aggccactgt agctcctacc tacttttcta gtcatatctc tttccaccct 120
ccacatggcc agectctaca ccgtcacgat gaatgactgg ccctcatccc tgaaggctgc 180
agtgtcaatg ettetgetea ettetettt cetttettea agetgetett etgetgttae 240
ctccaggaaa cccccaaggc tcgag
<210> 1444
<211> 417
<212> DNA
<213> Homo sapiens
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aatetetgee tetgtettea cacageatte teeteeatgt gtetetgtet etgtecaaat 120
tttcctcttc taaggacacc agtcatattg gacttaggtt tcaccccaat ccagtatgat 180
ctcattttaa cttgattaca tctgcaaaga ccctgtttcc aagtaaggtc acattcacag 240
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ctatgtacca ggcactgtgc taagtacttt gcatacattg tctcatttaa ccttcacaat 360
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<210> 1445
<211> 222
<212> DNA
<213> Homo sapiens
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geggegatee eegaaggega getgaaatae ggetgeagge tacaatttge ageegaegat 180
                                                                   222
tatggaagac ggcaagcggg agaggtggcc cacccactcg ag
<210> 1446
<211> 221
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (52)
<220>
<221> unsure
<222> (70)
<220>
<221> unsure
<222> (97)
<220>
<221> unsure
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<222> (209)
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gaatgatgtt ggtgaggctc agattcaatt gaaacagcaa tcagtgagcc actagtggca 180
ccaagcacat ttgattcgct ttcagaggng ggaagctcga g
<210> 1447
<211> 204
<212> DNA
<213> Homo sapiens
<400> 1447
gaatteggee aaagaggeet acaggaagge agaatgcace catcactact tagagtettt 60
cttgccttgg gcactttctc cacaaatacc aaaacgtata catcaagtgt gagcaggtca 120
geotgetete tgecatetet gttagtttta ttttcateca caaatttaaa gataaaccat 180
caaattggaa atcaccaact cgag
<210> 1448
<211> 253
<212> DNA
<213> Homo sapiens
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tgecctgate agaatttgga actacaataa ateteggata catteettee gaggegtgaa 120
ggacatcaca atgetgttag acacccagtg catetttgaa ggagaaatcg ccaaggeete 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag
                                                                  253
<210> 1449
<211> 422
<212> DNA
<213> Homo sapiens
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cagagcatga atgggataag gaggatgacc atttgggaga gtagaaagag tggcagctat 120
aacccattgc agtgtgttgg agcctaagtg gaatgatgag ggcatcctgt gcaggagggc 180
agccagcete aggatagtag aacccaggtg gagagggggg cagtecatge agacagcage 240
acagtggcat cagcttgatg gagagtgtta gagtaggggg cagcagtggc agtctaataa 300
ggtatgaage ettgagtaca gtaaagaggg tacetgtatg tagecatggt ggcaatgaga 360
gactgattac tacctgctgg agattgtttt aagtgagtta atatattaag gagaaactcg 420
<210> 1450
<211> 433
<212> DNA
<213> Homo sapiens
<400> 1450
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aaggaaagtt ggcgtgaggg agaagagaga aatgtggcag gggtgagggg aacctgggtg 120
caggccaggc tgcctcagcg ataccccagg gaggctagtg tgggaaggaa ggaccaggaa 180
tccctgaaag gaccaggagg caacgggacc tgagggggtg ttggggaggc aaggagggc 240
tgctcggact ggagctgctt gccaaggtat tcccagttgt gcaccatgag cttctgcacg 300
gccagcagag cattatagcg gacctgctgg tcttcatgat gcatgtggtt catgaccagc 360
tgetteccae egagetgete gatgaceegt ttgeetegtg gataatgeeg cacatattet 420
                                                                  433
ccaacatctc gag
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<210> 1451
<211> 609
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (571)
<400> 1451
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gggaaccaga agtgtcagcc aattttccag aagagaaaca gagactccca gaggctgagg 120
gcctggaggt ggtgcagcac agtcccacat ctgatggggc tcctttattt ctgaaaggcc 180
atttgcttta gtctttgagt tgacagaaag aggcatggac ttgtctatcc caattgatgc 240
tecageetea aaagetgtge atteactata getageeact gagtgteeac acettetetg 300
aaacttcaac totaatagot ggaaaagaac actotttott otoactotca catggttaga 360
gagagagaga gagagagag tggatgaaca tactttacag atgtgttcac atttgctaag 420
tggtccccaa gccatttctg gaaagaatga ggttgcaatt gcctagtggc tgctcagggg 480
gagagagetg geaagggget gacageagae accetggeat ceeagtgage gtetgetgtg 540
cctggaactg tagtccccaa atatggtcaa nttgcgcgtg aaagtatttt aagagctgta 600
atcctcgag
<210> 1452
<211> 806
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (364)
<400> 1452
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acaagaagta aggttactct ccttgcatga taccttccct ctcaggacta attttagcaa 120
aattgagatg taaaatcata tetttttea gttatttaag caacattaat gatetattaa 180
atgaaataat ttgtctgaaa atatctagta taatgcctgg ttgatagtag gtactgaata 240
tttgctattg ataattttat tttctcattt cctacctact tttcttcctt tcctttaatg 300
tttaaggetg tgttageatt gtttageett tacattette agaatttgaa tttttaatce 360
tgtngggtet taatttettg ggatgtgttt tattttgagg agagtagtge aagggtgaga 420
ggttatcatt ttagcgtgct gggtaaccag ggggacccca gtgtgacctg agttcttgtt 480
gtgtctgctg gtataattta tgttatggca ggcagtgggg tgggaggtag gtaggtggta 540
gatatatgaa aagtagaata ttaacctctt agtacatttg aagcatgtac tgcctaattc 600
aaagtgaatc tttctgtatc atgtgcctcc tgagggcagt tacgtgtctg ggataagtag 660
agogtttttc attctactct caagoacact aaaatgctta ttatgtgaag tattaaggaa 720
taataaggtg attttcaacc ttgttataca aaacaaaaat ttgcttttct ttccaatctt 780
ggatgattga caggtattgg ctcgag
                                                                  806
<210> 1453
<211> 576
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (69)
<220>
<221> unsure
<222> (530)
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<220>
<221> unsure
<222> (554)
<400> 1453
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gaagatacnt cccccattca aggtacactg ccaaactgca ggaaagagat cctagcaccc 120
accaaggtgc aactatgcta ctggatctct gggtggaaag aaacaaggag ggagttacag 180
aggaataatg tgagcagcag aacagagatt ttcatccaaa cattatttat gatgaatttg 240
gggaaaatca gatgaaaaat atatggccaa agtgaatcaa agaagacact aaaattctta 300
tatttttatc ataatagaca gtgctgcact gcacaaaact ttgtcttcat tctataactc 360
ttttccaagt ctagaaaaga gtctagaaaa actagactca tatcaacaag cttactctat 420
tcatgcttac agcgaaaatg agggcctcaa attaggaggt ctttcctttt aagccattct 480
tctagaagaa tgcagtctag aagttgtgag ctgagctttg gccccctaan atcttccaga 540
aatgaaccca cctnatacca caatcaaacc ctcgag
<210> 1454
<211> 145
<212> DNA
<213> Homo sapiens
<400> 1454
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gettteetee attetggeee accaeceatt aataetgeag gtgaagaeag atttgetett 120
cctcctatta ctctcctgtc tcgag
                                                                   145
<210> 1455
<211> 439
<212> DNA
<213> Homo sapiens
<400> 1455
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atgtgcgacc gaaaggccgt gatcaaaaat gcggacatgt cggaagagat gcaacaggac 180
teggtggagt gegetaetea ggegetggag aaatacaaca tagagaagga cattgegget 240
catatcaaga aggaatttga caagaagtac aatcccacct ggcattgcat cgtggggagg 300
aactteggta gttatgtgae acatgaaace aaacacttea tetaetteta eetgggeeaa 360
gtggccattc ttctgttcaa atctggttaa aagcatggac tgtgccacac acccagtgat 420
ccatccaaaa accctcgag
<210> 1456
<211> 557
<212> DNA
<213> Homo sapiens
<400> 1456
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aagctgtaga gatcaagaaa agaacttaag tgttgatctc aagatttcta aattgtcaag 120
atttacatgg cattgtggtg gaactagtta acacttagag cttttggtat gtaataacta 180
tttgctatgg actgattaaa tgtttcaaaa gattgtgttc ttcaattttg gtgggttttg 240
attitigtti tittaacigo cicicagati atattiacit agittaaatt icitigcitt 300
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tttacaaaac accetttgtt gacttttatt ttataaatgt gtaatgtatt aaacgtettt 420
aaatttttgt tcaactgaaa ctacattaac tttgatttgc tttactggga ttttttttta 480
aagacacttt ttccatgtca gtgcgcagca cttaaccagt cgtttgtatt ccctttctct 540
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tcaatccaac cctcgag
<210> 1457
<211> 413
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<212> DNA
<213> Homo sapiens
<400> 1457
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tcaaatataa ctgaagcaaa tattttgtct tatgcagttg acagggtatt ggtcagttac 180
agttgtcatt tgaatcagtg ctgtcttatt tacattattt tctagatagt ttgctatgta 240
ttttaggtac tttaatagct ctttaaatta aagaatgtca agggatgtgt gtggctaggt 300
gggtgtacac acacacatac atgaggtcgc tcatggattc aggtttgtga gtgtaattga 360
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<210> 1458
<211> 142
<212> DNA
<213> Homo sapiens
<400> 1458
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geceaceact actecaceca getacectee agataggeae agtatggeea ggettggeet 120
cacggtcagg gcctttctcg ag
<210> 1459
<211> 698
<212> DNA
<213> Homo sapiens
<400> 1459
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tgctgaggtt tgggatatga atggtcccat aacccaggtg gtaagcatac taaccactag 120
atagttttta aatcctaccc tctgccccac tagtagtctc cagtgtctgt tgtgccatct 180
ttatgtccat gagtatgaaa tgtttagctc ccacttataa gtgagaacat gtgttatttg 240
gttttctgtt catgcgttaa ttcacttagg ataatggcct tatataatga agcccagctt 300
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aaagcaatca gtagaactag atcccgatat aaaggctata gtggaaaaga cagataatac 420
gtttgagcag attggaaatt tcggcacaga aacgttaaga aagattcaaa tggaaattct 480
ggaaatagac acattaacag atgaagaatg gctaagacct tcagattctt tagtagactt 540
aatgcagcta aagaaagaat gaatgaacct tgaatgtaga ttcatagaaa tacccaaact 600
aaaaggcaag gagaaacaga acagagtgtc taagaattta ggaaaatcta aaactgtata 660
acatgtctac tagaatttca gaagaagtaa tcctcgag
<210> 1460
<211> 239
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (189)
<400> 1460
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atccattgtc ttgttggata ttattaagca tgagatttgg ggttatttcc ttcgttcctt 120
cettetetee tteetteett eteteettee tteeetetet eetteettet tteettete 180
cotecetant teecteette ectecetee teetteette ecttgeece eccetegag 239
<210> 1461
<211> 836
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (509)
<400> 1461
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aatttgtgga ccaggcttgt ggcccaagtc attcaaaaga aagtatggtg agtcccaaga 120
tetetgetgg acateaacae tgtggteaga geagetegae ecceateaae acteggattg 180
aaccttacta cagcatctat aacagcagcc cttcccagga ggagagcagc ccatgtaact 240
tacagecagt aaactetttt ggatttgeca atteatatat tgecatgeat tateacacca 300
ctaatgactt agtgcaggaa tatgacagca cttcagccaa gcagattcca gtcccctccg 360
tttaaagtca tggaggctat aggatcttat gtaaacagtt tttgtttctg atagtaatgg 420
actttattct aacttgagat cagtggcgga tcaaaaccta caagattcaa ctgaaaagtt 480
ggcagttatg gttttctttc atctgatgng tcagtatctg ttgatttgct ttgtagtttt 540
gttgacatet taagattgat gtgaaagttt tagatttttt accetgetet ttgeetcagt 600
cttttgtacc gagcctttaa atagatgcca ggaatgaagc tactgtgtta aagtagaaag 660
tcaaccgatt atcatgattt gagtcagtgt tatgtgactt caaaataagg tattgactgg 720
atttttttta aagaatgtga aaatatgatt tttgctgagg tgttattttt attaattgaa 780
ttgtaaattt tgattttttg aagtgttgaa atcgggaaca ctacacatag ctcgag
<210> 1462
<211> 394
<212> DNA
<213> Homo sapiens
<400> 1462
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tgtaatcctg ttttataaag aggacagtgc agggggaaag ctgtacccaa tccccctgta 120
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<210> 1470
<211> 501
<212> DNA
<213> Homo sapiens
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<211> 514
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<212> DNA
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<212> DNA
<213> Homo sapiens
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<211> 513
<212> DNA
<213> Homo sapiens
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ataagaagaa aaattatgct ctgagaggtt aaatgacttg tttaaggtta cacagtcagt 180
ggaaaagtct gggttacagc ccccaaattc taatttgtca tccccattta tatccttttt 240
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<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<211> 365
<212> DNA
<213> Homo sapiens
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tcgag
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<211> 539
<212> DNA
<213> Homo sapiens
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tcaattctcc atcctcaacc ccagtgegac ctcctatagt caaacagctt atacttcctg 180
gaaattcagg taacttgaaa agetcagaca gaaateetee aetcagteet cagteeteta 240
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<211> 369
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (24)
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<211> 397
<212> DNA
<213> Homo sapiens
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<210> 1482
<211> 243
<212> DNA
<213> Homo sapiens
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catectcate atecceateg cecteateat ceteatggat tgaeggtgea geaaagtgat 180
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<210> 1483
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<212> DNA
<213> Homo sapiens
<400> 1483
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<212> DNA
<213> Homo sapiens
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cttattattt gatctagaaa ttgccctcca gaaattggct ggtggaaaaa aatcaaacat 240
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<212> DNA
<213> Homo sapiens
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accoggoaag cagtocaaac tgcaggatoc cogcoaatat cgtcaggota atggaagtgc 360
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<212> DNA
<213> Homo sapiens
<400> 1486
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taacaacttt gcctggactt ttttcatttt acaacagttc atccattcac agtgattttg 240
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tggagattga acaagttcac tttccagctt nataggcaac tttatacaga cttgaacatt 420
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<212> DNA
<213> Homo sapiens
<400> 1488
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ttctaaaatt taagtcattc agtaattact tacttgctgt ttgctcctac tccagccaca 180
aaccgtttcc gaggatacct gtctttaagt tgttttaaag tcattctgtt ctgggctaca 240
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<212> DNA
<213> Homo sapiens
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ctgggtcttc tgcaatacaa gtggttttag aaagtgcttc tcggctgact gcacgaacgc 180
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catgagccag trggtgagga cgcagatgcc tgtcgccacg cccttgacat gcagagggaa 300
gatetetgae atgaggagee aggggatggg ceeecageee acegeaaage etgtgggage 360
gagacaggca agacaggcat cagggtccgc agggctgggc tectcagett getgcagage 420
caagagaccc agetteecag cetgtgggge tgtggggtee eggateecag tgtggteeca 480
ccagetecat gettteetge caaggeeteg gecageetet teeeteetea ggeacagget 540
ctgtctctga gatggggtca caacggggcc tgctccgag
<210> 1490
<211> 520
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (432)
<400> 1490
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tgtaatccca gcacttgggg aggccaaggc gggcggatca cctgaggtta ggagtttgag 180
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accageetgg ecaacatggt gaageeetat etetaetaaa aatacaaaaa tttggetgag 240
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ttgtgttggt ataaagacat atgctacagg agcagcattc tgaagacttc aatttcaact 360
atggetetae ttettaetag tgaaaceett ggagaageaa ettaatgtet etgaacetgt 420
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<213> Homo sapiens
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<222> (198)
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ttaccattag caaaggagaa atataagagt gataaagact ccacttccac caggettgag 420
agaaagttgt cagatggcca caaaagcaga agcttaaagc atagtagtaa agacataaaa 480
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<211> 450
<212> DNA
<213> Homo sapiens
<400> 1492
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gtgagacttc atggaaagtt actgtaaaaa acaaaaaaaa gtccttactt ccattcagtt 180
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aactttaaat gattaaatga aacacacaac agggagatct attgttaatg tgttaaccaa 300
aattgccagg aattgcccta aaggggaaaa attgtttaat cagtaaatca gtgaggaaat 360
acaagattat aaattagaag tgttgctatg gtgttagctc ttacatccct gaacaacaaa 420
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<210> 1493
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<211> 184
<212> DNA
<213> Homo sapiens
<400> 1493
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cgag
<210> 1494
<211> 656
<212> DNA
<213> Homo sapiens
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ccatgtacaa caaagctgtg tggtcgcctg agccctgcac tacctgcctc tgctcagatg 240
qaaqagttet tigiqatgaa accatgigee ateeecagag gigeeeccaa acagitatae 300
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<212> DNA
<213> Homo sapiens
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gttetteate tggaagaaat ggetgeageg etggaactea ggeeeteete egeteagaet 180
cagettgace eccegaagag agatetegag
<210> 1496
<211> 760
<212> DNA
<213> Homo sapiens
<400> 1496
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caagttaagt gttttcatgc actocototo toaccacotg ggaggcaggt atgattaacc 360
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ccctggacgt gacatgctcg ccagccgggg tacaccctgc acaatgctgg gagcatctcc 480
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<210> 1497

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<213> Homo sapiens
<220>
<221> unsure
<222> (110)..(111)
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ttccttcact ccttccttag agccggaggt cgcgcgcagg gaccatgtcg gcggagaccg 180
egageggece cacagaggae caggtggaaa teetggagta caaetteaac aaggtegaca 240
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tggcttcact ggaaaaatgg tgtggctagc atttcccttt gagtcatgat gacagatggt 660
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<210> 1498
<211> 662
<212> DNA
<213> Homo sapiens
<400> 1498
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agggttctcc ttgggacttt tcagtgtctt ggcaggaaag agatggcaca cacgaagcac 240
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aσ
<210> 1499
<211> 695
<212> DNA
<213> Homo sapiens
<400> 1499
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taatgatggg gaagaaattg aagacgttgg aggttttgct caaagacatg gagaaaggtc 540
acagtttgct gaaatcagcc cgggagaaag gagagaggc tgttaaatac ttggaggaag 600
gcgaggcaga gaggttaaga aaggagattc atgatcacat ggagcagttg aaggaactga 660
                                                                695
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<210> 1500
<211> 626
<212> DNA
<213> Homo sapiens
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agcacatttt aaacatgcat gaatcaaatt actgttgttt atgctgacag tgtttgttgc 300
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gactcaaact gtatcatgca teegactgte tetgtttetg taaaacattg tettattetg 420
ccttctattg ctataagtga ataatcaaga ctgggtaatt tataagggag agaggtttat 480
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<210> 1501
<211> 509
<212> DNA
<213> Homo sapiens
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<210> 1502
<211> 770
<212> DNA
<213> Homo sapiens
<400> 1502
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gagattcatt tttggcacaa acaaagaata aaaaagaaaa tatgaaacca gcagccaaac 180
tgaaacttga atcttcgtct ttaaaaqtaa agggtgaaat tcttttggaa gaggaaaagt 240
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caaacagtaa taatgatgaa agaaaaaaag ctttaatttc atcaaggaaa acatcaactg 660
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<212> DNA
<213> Homo sapiens
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<220>

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<222> (147)
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<222> (386)
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agaatattac caaagaaggt ggcttantgg acatggccaa gaaagaanat gacttaaatg 180
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gecacaacca cttetteaga aacaagacaa agtgaggtgg etttgeettg caccageatt 600
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<210> 1504
<211> 713
<212> DNA
<213> Homo sapiens
<400> 1504
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gegeggeage teaegeetgt aategeagea etttgggagg ceaaggeagg tggateaett 180
gaggtcagga gttcaagact agcctggcca acatgatgaa gccccatctc tagtaaaaat 240
acaaaaatta getggaageg gtggtgcaag eetgtagtee cagetacteg ggaggetgag 300
gttggagaat cacttgaacc ctagaggcgg aggttgcagt gagccgagat cgtgccactg 360
cactecagee tgggcaacag agegagacte catetcaaaa taattaaaaa aaaaaaatag 420
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agtaggggga ggaggtggca aatatgcctg cgtatccaca gaactcaccc accgtgtgtg 600
gagtgaggac tgccacgtgg gcgtggtggg gttgcatgga tcgacttggg tgggcaagtg 660
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<210> 1505

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 <212> DNA
 <213> Homo sapiens
<400> 1505
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<210> 1506
<211> 668
<212> DNA
<213> Homo sapiens
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cggtagttta atgtggcttt gtagaagaat cagtatttcc ctccttagag tccctctgtg 360
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cetteceaaa tteateeget tetteeeett etettegggt ttaetetget ttageegtge 480
ggatettett teeattatgg aatatgteeg gaetaeteee accegteaga ttttgtaett 540
gtggttccca ctagaagcat ccagaatgtt tttcctctct accctcccc attctttcat 600
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<211> 636
<212> DNA
<213> Homo sapiens
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<222> (48)
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<221> unsure
<222> (137)..(138)
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gggtggaaat gtggccactg caggagatgc cacctgagtt aatgaagccg gaccttttca 240
catacccctg tgaaatgtca ctgatttctc aatcaacgag actcaattcc tattcatgac 300
tgactctgaa attcatttct tcgcagagaa tactgtgggg gtgcttcatg agggatttac 360
tggtatgaaa tgaataccac aaaattaatt tataataata gctaagataa atattttaca 420
aggacatgag gaaaaataaa aatgactaat gctcttacaa agggaagtaa ttatatcaat 480
aatgtatata tattagtaga cattttgcat aagaaattaa gagaaatcta cttcagtaac 540
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<221> unsure
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<222> (806)
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gatgctattt cttgttcata actcagctca actttaccta ccctctaaag cctttcctga 720
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<210> 1509
<211> 125
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<213> Homo sapiens
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<212> DNA
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cgagagecee aagageacaa aaagtgeaga caecactaca gttgeaacet ecaeageeac 300
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<211> 471
<212> DNA
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gaaagggage caagttagga aatgetgett gggegatgge caettecaaa cetgatatet 360
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<210> 1512
<211> 250
<212> DNA
<213> Homo sapiens
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gcacagagag atgratatet tetttettte tttatttttt ttgagacaga gteteaetet 180
gtcgcccagg ctggagatca gtgtgacacg atcttggctc actgcaacgt ccacctcccg 240
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<210> 1513
<211> 620
<212> DNA
<213> Homo sapiens
<400> 1513
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gaccgtcctt ctgcagaggc ctgcgggcat tgaggctatc aatccccagg gcttggggag 180
caggagggga gggcaccaag tgctcttact ctcctgagct ccttttgatg cgtaagcttt 240
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aaaaggagaa gttggaaggg gattgtggga ggagcccctg ggggcctggt ctgtcctcca 480
ccagaacttg gagttgctgc cagcagagga tctgtgcctc agctgaagac tagctccgga 540
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<212> DNA
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gtggaatata tatattttta tttctttgca tactctttct gccccaccca catcctcttt 180
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<211> 320
<212> DNA
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ttattaagga gcctcaaaca aagccttcca ggcatcaacg cacagagaac attaaagaaa 180
ggtetetaca gteeetggea aageetaagt eecaggeace cacaagggea aggaggacaa 240
ccatctatgc agagccagtg ccagagaaca atgccctcaa cacacaaacc cagcccaagg 300
cccacaccac cggagacagg
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<212> DNA
<213> Homo sapiens
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tacaccaact cetgecettg gteaccetge teetgeetgt geteggeete agteaccece 180
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<220>
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<221> unsure
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aactgggact gggaggacca gggtgctgag atgcggcaga gacaaggcct aggacttgga 180
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aggtgtgtgtgc ctgagcacct ttagcccact gcctggcttc agaaatgcaa gcttgcgtgc 360
cgtcccaccc aggcccttaa ataatacaag ttaattgaaa gagtttaatt tgaattaatg 420
agattctgtt aaaatattgt taacagttaa gtagataatt attctatgaa caaaacaaat 480
ggeteetgea gggtetatgt caatgaatag acacetteat ttacagttgg gateetteaa 540
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acceaagetg cagtgeggtg gtgecateat ageteaetge ageeteaaac teetgggete 180
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<211> 692
<212> DNA
<213> Homo sapiens
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catcatecte agecatgeag gageetteee tetgeeette atettgette eteegtttea 480
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<210> 1520
<211> 277
<212> DNA
<213> Homo sapiens
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ccaaagtcct gggattacag gtgtgagcca ccgtgccggg cctttctctt tttttttt 180
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<210> 1521
<211> 261
<212> DNA
<213> Homo sapiens
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actecettgg atttectega q
<210> 1522
<211> 174
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<221> unsure.
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ccaggaagct gtttgtggga aggatgggac ttaactcagg agtgttttag gtatggacat 180
gtgteagtat teacaaaaca ggcaatatat teattataga tgcaateatg aaactteeet 240
ccagagaagg ctcacatctc ccctttcacc taggaagctc cttagcttga aggcccacca 300
eggtetgate ceagecteca ecceagecea aatgaactee catttaatte ettggacatg 360
ccatgacgtt cacggctctg catacttgcc aataactgtt cttccagcct acctgtcttg 420
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<211> 422
<212> DNA
<213> Homo sapiens
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cctaccttgg cctcaaggaa ggtgggaaac atcttctgca tttcaaagtc ctcactttga 240
cttatttggc cttcatcttg gcatggaagg tggcaggcag aatggaaata ctccccccaa 300
acaaaacaga tattettgeg tgtgtaaggg cagaagggac aageteteta teecatgaga 360
ctaggggccg gagcccacct gcctttcccc acaacttttc ctgctcaaac cccgtcctcg 420
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<211> 108
<212> DNA
<213> Homo sapiens
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<210> 1526
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<212> DNA
<213> Homo sapiens
<400> 1526
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tctt
<210> 1527
<211> 245
<212> DNA
<213> Homo sapiens
<400> 1527
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aaagcagact tttctggggc tggacgatct ggaatatctc caggetgatt ttaatttatt 120
acgagatata gacccggggg ccttccagga cttgaacaag ctggaggtgc tcattttaaa 180
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cgacg
<210> 1528
<211> 276
<212> DNA
<213> Homo sapiens
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etgteageet caatetetet tgttetttea etgteeaaat etgeetteee teecteatee 180
aagacatgtt tgattettgt etggaetett gaaacagget tgtaetteac aettetaeet 240
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<210> 1529
<211> 139
<212> DNA
<213> Homo sapiens
<400> 1529
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gtttaggagt attctcgag
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<212> DNA
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tetacetete tatactaate tecetacaaa teteettaat tataacatte acagecacag 180
aactaatcat attttatatc ttcttcgaaa ccacacagct cgag
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<210> 1531
<211> 586
<212> DNA
<213> Homo sapiens
<400> 1531
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tcgag
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<211> 208
<212> DNA
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aggggtgaca ggtacaatcc tgttaacttg tttcatatct ctgagcttgc tgctgtctgt 180
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<211> 245
<212> DNA
<213> Homo sapiens
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ttttttccca tctcttcatt tgtcgtttga ttctgtttat gctgttcctc cccccactcg 240
aggca
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<212> DNA
<213> Homo sapiens
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gatataggaa atcaaatgaa tgtttctgag gagatgaaag ttacaaatat tgggaatcag 120
caaattgaca aagtttttaa caacattgga gcagaccttc tgactggcag tgagtccgaa 180
aataaagagg acgggttaca gaataaacat aaaagagcat cacttacact tgaagaaaaa 240
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<210> 1536
<211> 107
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<212> DNA
<213> Homo sapiens
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<210> 1537
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<212> DNA
<213> Homo sapiens
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gaactattga tatcatcatc atccacactc atctcaattt cacgtatcac ttcaattttc 180
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<210> 1538
<211> 260
<212> DNA
<213> Homo sapiens
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ccctggcagt gggggctgtg cccgtggtgc tcagtgccat gggcttcact ggggcaggaa 120
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gtgtttetge ggggageetg gtggetacte tgeagteegt gggggeaget ggaeteteea 240
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<210> 1539
<211> 406
<212> DNA
<213> Homo sapiens
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gagtttette tgccacetgt gtcaaggeta ettegatgge eccetetace cagagatgte 120
caatgggact etgeaceact acttegtgee egatggggac tatgaggaga acgatgacee 180
cgagaagtgc cagetgetet teagggtgag tgaceaeagg egetgeteee agggggaggg 240
gagecaggtt ggcagectge tgagecteae cetgegggag gagtteaeeg tgetgggeeg 300
ccaggtggag gatgctgggc gcgtgctgga gggcatcagc aaaagcatct cctacgacct 360
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                                                                  406
<210> 1540
<211> 618
<212> DNA
<213> Homo sapiens
<400> 1540
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ggtcacttcc tgatcgcacc tggagctggg etctgctgcc ctcagtggag tgagcacccg 180
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ccaaatctga catctatctg geeectgegt catttegeea gteecteggg gagteagtge 540
ttaggtettt caegtggate teaetteeae geetgeetge caeateeeca geecegetaa 600
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                                                                   618
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<211> 437
<212> DNA
<213> Homo sapiens
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tttcttcact aaattgactg cagatgagct gtggaaaggc gctttagcag agactggtgc 180
tggagcaaaa aaaggaagag gcaaaagaac taaaaagaag aaaagaaagg atctgaacag 240
gggtcagatc attggtgaag ggcgttatgg ttttctatgg cccggactga atgtccctct 300
tatgaaaaat ggagcagtgc agaccattgc ccaaagaagc aaggaagagc aggagaaggt 360
ggaggcagac atgatccagc agagagaaga gtgggaccga aagaagaaga tgaaggttaa 420
acgggagett cetegag
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<211> 544
<212> DNA
<213> Homo sapiens
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atttgatact ggtgatggaa tgtttctcca gtgggttctt tgtgctgcca tatggttggt 180
tgccttggtt gtcaatctga tattacattg tccaaagttt tggccttttg caatgcttgg 240
gggctgcatt tgggcaacag ggaacattgc tgttgtccca attatcaaaa ccattggttt 300
aggeettgga atettaatet ggggateatt taatgeetta aetggetggg caageteaag 360
gtttggctgg tttggattgg atgcagaaga agtatcaaat ccgctgctaa attacattgg 420
agctgggcta tcagtagtaa gtgctttcat atttttgttc atcaaaagtg aaataccaaa 480
taacacgtgt tocatggata ccactccatt aataacagag catgtgatca acacaaccct 540
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cgag
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<211> 555
<212> DNA
<213> Homo sapiens
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<220>
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<222> (80)
<400> 1543
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ggctcaaaat ttataaggaa aaaacattac ggagttctgt ttttttctga ttagttgtgc 180
ggtctgaaag tagaagtgga tatggagaaa attgcagctg agattgcaca ggcagaggaa 240
caggcccgca aaaggcagga ggaaagggag aaggaggccg cagagcaagc tgagcgcagt 300
cagagcagca tegtteetga ggaagaacaa gcagetaaca aaggegagga gaagaaagac 360
gacgagaaca ttccgatgga gacagaggag acacaccttg aagaaacaac agagagccaa 420
cagaatggtg aagaaggcac gtctactcct gaggacaagg agagtgggca ggaggggtc 480
gacagtatgg cagaggaagg aaccagtgat agtaacactg gctcggagag caacagtgca 540
acagtggagc tcgag
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<210> 1544

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<212> DNA
<213> Homo sapiens
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acattttgac tatctttctt qataaagatt cgctctccag ctttataatt tttttactga 180
ggaaactcat tttgatggga ggtgttttgt tttagtttct tttccatcca cagatgtact 240
ceteateaga tgttttggaa gttcceteag tetggetett ggagteeatt teagaagtag 300
atattttgct ggacacctaa ggttcttgtc tcatagagat atttcacttc tgttccctaa 360
atcaagaagg ttgtcctcca agtttttagt tacacagttg tctctgtttc ttccattaac 420
gcctaaaccg tcgattgaat tctagacctg cctcgag
<210> 1545
<211> 414
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (171)
<400> 1545
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gaaggtgaaa gaattetgga aatgaatgtg atgattgeac aartaatgta nttaatacca 180
cigaaatgta tacttaaaag ttattaaaat ggtaaaattt atgtatattt caccacagtt 240
gaaaaaaaaa agccaagtaa tacaagtaga agtaattgtt attaaacttt ttagtttatt 300
tttaaattgt ttttacaaac tttggggatt ttagagatgt gttccttgag tttgattttt 360
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<210> 1546
<211> 547
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (71)
<220>
<221> unsure
<222> (241)
<400> 1546
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tttttgaaag ttaggagata aatacatttt ctgatatttg ataaaccatg ctattggtaa 180
gettgacatt gtgetatgge aaaattetat geegtaatga aacagetggt ecataacett 240
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tgcttattgg agagaccatt tatgggaaca ctaaacacat agacgtgtct aagttttttc 360
ttagettttt tetaateatg aageataett tacatagaga aaaceataeg aaattttaat 420
ttacagetca gtgaactgtt acaaggecaa tattaatgta tegeecacee aaataaaaaa 480
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<210> ,1547
<211> 515
<212> DNA
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<213> Homo sapiens
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gcaactgctg cttattgcgg gccttacccg ggagcggggc ctactacaca gtagcaaatg 180
gtcggcggag ttggctttct ctctccctgc attgcctctg gccgagctgc aaccgcctcc 240
gcctattaca gaggaagatg cccaggatat ggatgcctat accctggcca aggcctactt 300
tgacgttaaa gagtatgatc gggcagcaca tttcctgcat ggctgcaata gcaagaaagc 360
ctattttctg tatatgtatt ccagatatct gtctggagaa aaaaagaagg acgatgaaac 420
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gagagtggag ctcagcaaaa aacaccaagc tcgag
<210> 1548
<211> 643
<212> DNA
<213> Homo sapiens
<400> 1548
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caggigigag ccaccatgee eggetigitt titataagti ageaaataig atcitticte 120
tggtgatatg ccaacatagt tgtaatgaat aaaatgttac agaagacata acatatgaaa 180
agttattagc taactatttt atttcaatgt gatggactaa accacacact gcatttaggc 240
ataactttga getgatgact teetgtactg teeccaacca attgtcacce etcagaggge 300
tgccacacta ccctcttgtt ggcacaggaa ttggttggtc tgggctttta aaatcagatt 360
catchthetg aattectiee teagettett teccatetge etageteetg tgeeceatee 420
gggcattcca ggccaacccc caagtgtctg gccacggaag tgaatatgtt tgggatttaa 480
atcatcagtt gcctttgaaa gtcacgctgc aatagacaga taacttggaa tgcaggtgag 540
gcagagaatt cactgccatc aagtcgcagt gtaaataaga tcacagaggt gatgataacc 600
tttcacgggt tgatgatagg ttaatgaaaa aagaactctc gag
<210> 1549
<211> 588
<212> DNA
<213> Homo sapiens
<400> 1549
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aaaagctgca gcttagcaga tatgctcaca agctacatct tctaaagcct gacattggtt 180
aggaattaag gtcgggtcca ggtctcagta ttaataattc tttctcttta tcacctgaat 240
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ctaaattatt tacgagatac tttaccttct ttttttcaaa atctttaaaa tccagcatat 480
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<211> 744
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (238)
<400> 1550
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ggattattac aggictictt aaaagtattc aaatgatagt agaaaggcag atcigggcag 120
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gcttgaggcc aggagttcga gaccagecte ggcaacatgg tgagacgetg tetetacnaa 240
gaaattttaa agattggctg ggtatgctgg tatgtgcctg tggtctcagc tactcgggag 300
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gccactgcac teccagecag aatcacatga gageetgtet caageaaaca aacaaaaaat 420
gattettgee actgagetta agaaaagaaa aagggaaaaa aaggeagate tgaatteeet 480
ctagatecta cetttteaag ggagaaaaga gaggacagag ccaagggcag aggaaaaget 540
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ttttgaatet ttggaacate tgttttgate agaetgaaaa tagttggace acatgttttg 660
tgtttcaact gaacattcca gagagaagat tataattctg aaggtgtctg ttcataaaga 720
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<210> 1551
<211> 529
<212> DNA
<213> Homo sapiens
<400> 1551
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aaatgaaaga aacgtgaaat ttcccccaga acaccctgta gagaatgatg ttacacaaac 120
tgtaagttct ttctcattgc cagcctcttc aagatcaaaa aaattgtgtg atgttacaac 180
aggacttaaa atacacgtgt ccattccaaa tagaattccc aaaattgtaa aagaaggtga 240
agatgattac tacacagatg gagaggaaag cagtgatgat gggaagaaat accatgtgaa 300
gtccaagtcc gctaaaccat ctactaacgt taaaaaaaagc ataaggaaaa agtattgcaa 360
agttagetee tetteeteet cetetttate treeteatet teaggtteag gtacagattg 420
tttagatgca gggtctgata gccatctatc tgattcgtct ccgtcatcta agtcatctaa 480
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<210> 1552
<211> 438
<212> DNA
<213> Homo sapiens
<400> 1552
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tagcactttg gaaggttgag ggaggatgat cgcttaagtt cagttgttga aatgcagaat 180
acacattttt ggatccagga agtgttactt acgtgcctgt aacaatgtaa ttttaggcca 240
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gcctgtaaca atgtaatttt aggccaggtg cagtggctca tgcctacggt cctagcactt 420
tggaaggttg aactcgag
<210> 1553
<211> 710
<212> DNA
<213> Homo sapiens
<400> 1553
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tcaaaattat agtaacacat cactgaattt attgaatgca acagagaagc acatatatat 120
atogogttta ctttttatga ctgttttaat agaattagtt ttcttgtaaa tcctgtgtat 180
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taataaactg cttgatttta acttttaggc aaatttgttg actactgaga cagcggtttg 420
aaggtatcag attcactatg gaaactttta ggaaataggt teeectagtg aaacttgtta 480
aactaaataa agcccatgag aatctaacat gcctttcaga aaatattgtg tgaaagctat 540
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710
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<210> 1554
<211> 677
<212> DNA
<213> Homo sapiens
<400> 1554
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gettaaccga tggetetgat gtggteagtg acettgaaca cgaagagatg aaaatcetga 180
gggaagttct tagaaaatca aaagaggaat atgaccagga agaagaaagg aagaggaaaa 240
aacagttate agaggetaaa acagaagage ecacagtgea tteeagtgaa getgeaataa 300
tgaataattc ccaaggggat ggtgaacatt ttgcacaccc accctcagaa gttaaaatgc 360
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agaagagaga taagttgatg tocatgagaa aggatatgag gactaaacag atacaaaata 600
tggagcagaa aggaaaaccc actggggagg tagaggaaat gacagagaaa ccagaaatga 660
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cagcagagga actcgag
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<211> 536
<212> DNA
<213> Homo sapiens
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cattgcaaaa gcaaaaggaa actataaaag cctttctaaa gaaactagaa gccctcatag 180
caagcaatga caatgccaat aaaacctgca agatgatgtt agccacagaa gaaacctctc 240
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tttacagcaa attgaaagaa ttttctattc tgctccagaa agccgaagaa catgaagagt 420
cacaaggtcc tgttggtatg gaaacggaga caattaatca gcagcttaac atgttcaagg 480
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<210> 1556
<211> 575
<212> DNA
<213> Homo sapiens
<400> 1556
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cccttggac gacaaaagcg ttgtctgaga cagcatgcga agactcagag gaaaacaagc 180
agagaataac aggtgcccag actctaccaa agcatgtttc taccagcagt gatgaaggga 240
geceeagtge eagtacacca atgateaata aaactggett taaattttea getgagaage 300
ctgtgattga agttcccagc atgacaatcc tggataaaaa ggatggagag caggccaaag 360
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aactctatgt ggtccaaaca gttatcaaaa cagccaagtt catttttatt ctctgctata 480
cagegaactt tgtcaacgca atcagetttg aacaegtetg caageecaaa gttgageate 540
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<210> 1557
<211> 699
<212> DNA
<213> Homo sapiens
<220>
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<222> (7)
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<222> (9)
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<222> (40)
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<222> (105)
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gatcaccgtt ttctgggcac ggtaaaaaaa gaagccactt tttccaatcc taaaaccact 180
agcccaaata aaggcaaaga gaaggaggct gaggatggca ttattgctta tgatgactgt 240
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acttgtgtgc gacttttagg tcgtaattct aactccaaga ggctcttggg ttatgtggca 420
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cattacagtg agttetetgg tgatgttgat ageetggaac tgggggacat ggtcgagtat 540
agettgteca aaggeaaagg caacaaagte agtgeagaaa aagtgaacaa aacacactca 600
gtgaatggca ttactgagga agctgatccc accatttact ctggcaaagt aattcgcccc 660
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<210> 1558
<211> 651
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (632)
<400> 1558
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cctagacccg tgttggagcc acactgcccg ggacagccct gaagcagcca cgtccccacc 180
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atggetttge teaggtagat catteattge cataaatttt ettateteea gtgettttee 360
aattatggat aacaacagaa aagcagtcat tggtttctaa aaggtcatca agatataaag 420
cccgtttggg aagggaatga cttacgcagt gggcttgtat aaatctggag aagttttatg 480
cacaagtegg acaagaaatg taagtgagat teataaaata tataaegatt catggtgtet 540
cggctgatga aaattgtett teettttget gtttgtgtgg gaattatttg ttettteeag 600
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<210> 1559

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<211> 560
<212> DNA
<213> Homo sapiens
<400> 1559
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cgtggtccgc ccgcctcggc ctcccaaagt gccaattctg actctactta aacatcacct 180
gtatcaggga getcattatt cettgaggte ttacatttet tteageacat tttgtteeaa 240
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caaaacctgt agtacatgat acagtgttgc ttcccccctc cttttccttc catatatatt 360
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gaaggatgtt ctgagggcca gacattagaa tttgtgagtt tttttgttgc tggttgtact 480
ttcctattta gaagacagac cgttctgaca gttgttgtgt agcttcatgc cttccccagt 540
aactaaccca tgaactcgag
<210> 1560
<211> 625
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (116)
<400> 1560
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egateteate teaetgeaac etecacegee egegtteaag egatteteet geetengeag 120
cctcccgcca ccatgctcag ctaatttttg tatttttagt agagacgggg tttcaccatg 180
ttggccagga tggtctcgat ctcttgacct catgatccac ccgcctcggc ctcccagagt 240
getgagatta caggegtgag ceaeegetee tageetataa teatattigt aataattigta 300.
ctttgtgtag cactttacaa tggcgaagag ttttcagaaa taaccatatt taatcctcac 360
acagctatag agtaggtggc atatgacctg gattttctat caatttcagt ttcagatttt 420
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agacttgatt tgatttatac tcactatggt agaagataag gaaccaagtc cagaacacac 600
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<210> 1561
<211> 667
<212> DNA
<213> Homo sapiens
<400> 1561
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gtttctccca ctagaatacc agggtaggaa ttttcttttg tttactgttg tatctgtagt 180
gtccagagca gtgcctagca tgcagtgaat gcttattaaa tattttttga atgaatgaat 240
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tcctgcacag agattgtcaa tcaaatcata gttttgaagt ctgtgttcta tgtctaagat 360
tgtattgagc ccttttaaat agaaactgga agataaacgt ggtccctact ctgattctaa 420
gagettttat actaaaagga aagagaatgt catgageatt tatgtatata geaaggeatt 480
accatcaaca gccattaaaa ggggaggttt gtcaaggtgg tcgtgagtca gttgagtatt 540
tggcctcttc acacgtgtga gaggctggag gctggtgggg agctcacata ggcgtaacag 600
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cctcgag
<210> 1562
<211> 676
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<212> DNA

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<213> Homo sapiens
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anaagcetga gteatteaga tgggagagae agtgttteta etteetetta gttggggtte 180
ctccagaagg agaccctgag agaggacttg aggttatgta gtttatctga gtgaagatcc 240
cggaagtagg gagagaagga agctgacggg gaaggcgtgc attaccaagt aagttaccgt 300
catgtgcaca actggagctg aatcccactg gggaaccccg agagacagag ctgacacccc 360
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<400> 1575

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411

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<213> Homo sapiens
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tgttcgggac ttaaagacac ttgacctgtt tgggctgttg ccacttaaaa gttcatgacc 180
acaaatgtcc acagtgtctt cctctgagga aactcgaatc ctgaaatgga aattctttgt 240
ggcagataac tggcttatga caccttgaaa agttcaagtg ctcatataac acaccacact 300
gaaccccctt tcctacagca atatgttcac tatgttacca atttgcaact tgtgcttcaa 360
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<212> DNA
<213> Homo sapiens
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ccggagctcg ccagcatgtc tgtggtaccg cccaatcgct cgcagaccgg ctggccccgg 180
ggggtcactc agttcggcaa caagtacatc cagcagacga agcccctcac cctggagcgc 240
accateaacc tgtaccetet taccaattat acttttggta caaaagagee cetetacgag 300
aaggacaget etgttgeage eagattteag egeatgaggg aagaatttga taaaattgga 360
atgaggagga ctgtagaagg ggttctgatt gtacatgagc accggctacc ccatgtgtta 420
ctgctgcagc tgggaacaac tttcttcaaa ctacctggtg gtgaacttaa cccaggagaa 480
gatgaagttg aaggactaaa acgcttaatg acagagatac tgggtcgtca ggatggagtt 540
ttgcaagact gggtcattga cgattgcatt ggtaactggt ggagaccaaa ttttgaacct 600
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<210> 1587
<211> 745
<212> DNA
<213> Homo sapiens
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aaactgtgaa ggttgatcat ggaaattaaa gaggaagggg catcagaaga agggcagcac 180
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agtggttggc accatagaag tcagtgtcgt gaagatgggg gagattgagg atggggaagc 720
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<211> 129
<212> DNA
<213> Homo sapiens
<400> 1588
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<210> 1589
<211> 571
<212> DNA
<213> Homo sapiens
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cataaaagcc agcttgagag aaaaggaaga agaaagccaa aacaaaatgg aagaagtctc 180
caaacttcag tcggaggttc agaatactaa acaagcatta aaaaaattag agactagaga 240
ggtagttgac ttgtctaaat ataaagcaac aaaaagtgat ttggagacac agatttctag 300
cttaaatgaa aaattggcca atctgaatag aaagtatgag gaagtatgtg aggaagtttt 360
gcatgccaaa aagaaggaaa tatctgcaaa agatgagaag gaattactgc atttcagcat 420
tgagcaagaa attaaggatc agaaggaacg atgtgataag teettaacaa caatcacaga 480
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<210> 1590
<211> 490
<212> DNA
<213> Homo sapiens
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gcaactttct gagctacagg agtacgtgga ccagcacctg ggcaggtggg cagagggage 180
tgggtgtgac cccagggccc tggtctggtt ggaatgaagg atgatggctg cctcaggcgc 240
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caagcacgaa atcctgaggc tgaggaagct ggcaggtgca ggggacccct ggaaagtggg 360
ggctgtgcct ccagccaagc cccagcatcc aaggaccggc agccactagg ccgtctccca 420
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aaaactcgag
<210> 1591
<211> 569
<212> DNA
<213> Homo sapiens
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cctgaagaca atcagggaaa agacccttct aaaaaaaaat cccagaagaa aaacttggaa 180
gatgagaaag aagtatgccc aaaagccaag tcagaagaat catttgtatt aaatgagaca 240
aagaaaaata tagttaacac agatgtgccc catcaacatc cagaattact tcattcatct 300
teettggtaa agecaccage teecaaaaca ggaagtatac aaaataacat gttaactett 360
aatctagtta aacaacatac tgggaaacca gaatctacct tggaaacatc agttaaccaa 420
gatacaggta gaggtggttt tcacacatgt tttgagaatc taaattctac aactattact 480
ttgacaactt caaattcaga aagtattcat caatctttgg aaactcaaga agttcttgaa 540
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<211> 575
<212> DNA
<213> Homo sapiens
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tetgettgag ggggeegtag ettteatgee tgaagacate accaagggaa eteagteeet 420
acceacages tetgeetesa agttteesag etetggeesg gtgacecete agesaacage 480
cetaacattt geeaagtett eetgggeeg geaggagage etgeaggage geaageaage 540
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<210> 1593
<211> 213
<212> DNA
<213> Homo sapiens
<400> 1593
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tgactettea tgteageeac caetggttta gtteaggeec ttategatte ttatttggat 120
tattgtaata atttcctaac caggttcctt ttttccattc ttgtttctgg ctgtagtgtg 180
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cattgctacc agaaagatac tgctatactc gag
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<211> 579
<212> DNA
<213> Homo sapiens
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gcattaggta aacccaccaa gcaatcctag cctgtgatgg cgtttgacgt cagctgcttc 180
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attgagaaag aagccaacaa aacatataac tgtgaaaatt taggtctcag tgaaatccct 300
gacactetac camacacaac agaatttttg gaatteaget ttaatttttt geetacaatt 360
cacaatagaa cetteageag acteatgaat ettacetttt tggatttaac taggtgeeag 420
attaactgga tacatgaaga cacttttcaa agccatcatc aattaagcac acttgtgtta 480
actggaaatc ccctgatatt catggcagaa acatcgctta atgggcccaa gtcactgaag 540
catcttttct taatccaaac gggaatatcc aatctcgag
<210> 1595
<211> 111
<212> DNA
<213> Homo sapiens
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<210> 1596
<211> 722
<212> DNA
<213> Homo sapiens
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ttgtgatett tgetttgace tttgeettgt gatetttatt geeetttaaa geatgtgate 240
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gtaaaacagg acatttttac taagaaatat aaatatcttt tgtttctctg aaataagaag 540
tcaaaagtat ttaagcttca actcatagtc attaatgtct tagaattgta tcttatttag 600
agataattta gatattcaat gaatatccat cctttaattt agcatagcaa attttgaggg 660
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<210> 1597
<211> 601
<212> DNA
<213> Homo sapiens
<400> 1597
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caggeccage egeoggttet ggatgatgge categtetat actgaggtgg caattgtagt 180
caagtatttc ttccaatttg ggttctttcc ctggaataag aatgtggagg tgaacaaaga 240
taaaccgtat cacccccaa acatcatagg agtggaaaag aaggaaggtt atgttctcta 300
tgacctcatc cagctcctgg ctctgttctt tcatcgatca attttgaagt gccatggctt 360
atgggatgaa gatgacatga ctgaaagtgg catggccagg gaggaatcag atgatgagct 420
eteceteggt catggeagga gggacteete egattetete aagteeatea acetggeege 480
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gtctgtggag tcagtgcatg tgaccttccc ggagcagcag acagctgtcc ggaggaagcg 540
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<211> 492
<212> DNA
<213> Homo sapiens
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eccgtgeecc tggaccagac cetgecettg aatgtgaate cagecetgee ettgagteec 180
acaggtettg caggaagett gacaaatgee etcagcaatg geetgetgte tgggggeetg 240
ttgggcattc tggaaaacct tccgctcctg gacatcctga agcctggagg aggtacttct 300
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gatggccacc gtctctatgt caccatccct ctcggcataa agctccaagt gaatacgccc 480
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<211> 430
<212> DNA
<213> Homo sapiens
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ggcattgtat taggcattgc aggatataaa ataagtcata agctttgtct tagattggta 360
aagtttggat ggaacacaga cacatgtaga cctaattata atacagaaag aaatgcaacc 420
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<211> 401
<212> DNA
<213> Homo sapiens
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tttttaagaa ccctgtacta taaaaggttg agtaaaaaca ggaaagcgtg ctataagttc 120
aaatetgttg tattacceta aattagataa accaacetga attatagtag atttetcaat 180
agatgaggaa ctgaaaaata ctatgtaaaa tatcttccaa aatgcttttt atactttttt 240
tatttgtaat ttggtctatc taaaatgttc gttagcttaa cttaatgggc gttattggat 300
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<211> 524
<212> DNA
<213> Homo sapiens
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ccagettgtc atgettgact aacatatttt gaggeagtet teaegeaget cetgttttca 120
tgttctgggt agataagacc ccataccctg agctgcttga ccacattact tctgctttaa 180
gcctcgggaa cctgataagg taacccccga gttcctgtgc tgagtctcgt gcttccttca 240
aatgaactaa tccaaccgtg ctgtgggaaa cccacctagg taaccccata aaggatccaa 300
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cccacaggcc cctccgtttc tcgttcccca cctgctggtc gaaggagcag gtcctggatg 360
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<211> 496
<212> DNA
<213> Homo sapiens
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<211> 350
<212> DNA
<213> Gallus sp.
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tcgaggagaa gacagaatgc aacctttcaa agagcaacaa aatgaacctc ccagatctcc 240
cacceatete cattgtagat ttaactaaaa gateecagaa agteageaga aaagaggeag 300
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<210> 1604
<211> 276
<212> DNA
<213> Gallus sp.
<400> 1604
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gaagaggagg agacagtaga aggggaagat ctggatgaag ttcacacgga gtcatcggga 240
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<210> 1605
<211> 272
<212> DNA
<213> Gallus sp.
<400> 1605
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cgatgagcaa ggcccgccgc ctgcattacg aggggctgat ctttcggttc aagttcctga 180
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<210> 1606
<211> 249
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<212> DNA
<213> Gallus sp.
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aaagaaacaa caaaatgcaa cacccaccct gacaaaaagc cacacgatgc tacttttttt 180
getegtegta tgeageactg cageecatge agaaatgeea gatteecete tteeaaceee 240
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<210> 1607
<211> 107
<212> DNA
<213> Mus musculus
<400> 1607
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<210> 1608
<211> 416
<212> DNA
<213> Mus musculus
<400> 1608
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<210> 1609
<211> 121
<212> DNA
<213> Mus musculus
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<211> 205
<212> DNA
<213> Mus musculus
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<210> 1611
<211> 219
<212> DNA
<213> Mus musculus
<400> 1611
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ccactgaggt ggcaatgcac acttcaacct ctttcttcag tcacaaagag ttacatctca 180
tcacagacaa atgatacgca caaacgggac acactcgag
<210> 1612
<211> 656
<212> DNA
<213> Mus musculus
<400> 1612
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<210> 1613
<211> 166
<212> DNA
<213> Mus musculus
<400> 1613
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<210> 1614
<211> 805
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (337)
<400> 1614
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atgacagtga gtgttcagtg gtgaagcatc ctctattgaa tcaccctcaa aaaatttttt 720
tgccaagtcc taagttgata gcttaaagtc aaaagtaaaa ttatagttta agtaggactt 780
ggtgtaaaga aacaccccc tcgag
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<210> 1615
<211> 111
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420

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<212> DNA
<213> Mus musculus
<400> 1615
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<210> 1616
<211> 549
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (26)
<220>
<221> unsure
<222> (130)
<400> 1616
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cgaatacttt gccagtgcac taatctcttt ggagataaaa ttcattagtg tgttactaaa 120
tgttaatttn cttttgcgga aaatacagta ccgtgtctga attaattatt aatatttaaa 180
atacttcatt cettaactet cecteatttg etttgeecae ageetattea gtteetttgt 240
ttggcaggat tctgcaaaat gtgtctcacc cactactgag attgttcagc ccctgatgta 300
tttgtattga tttgtttctg gtggtagctt gtcctgaaat gtgtgtagaa agcaagtatt 360
ttatgataaa aatgttgtgt agtgcatgct ctgtgtggaa ttcagaggaa aacccagatt 420
cagtgattaa caatgccaaa aaatgcaagt aactagccat tgttcaaatg acagtggtgc 480
tatttetett ttgtggeett ttagaetttt gttgeeetaa aatteeattt tattgggaac 540
cgcctcgag
                                             The second
<210> 1617
<211> 441
<212> DNA
<213> Mus musculus
<400> 1617
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ggagagagag aaagccctgc gactccaaaa ggaacgactt cagaaggaac tggaggagaa 180
gaagaggaag gaagagcaac agcgcctggc tgagcagcaa ctgcaggagg agcaggcaaa 240
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tectgtttgt aceteatate aaatgaetee acaaggaeee aaateeatee ecaagateag 360
cgtagacgat tatgggatgg acctaaatag tgatgactcc acagatgatg agtcccaccc 420
ccggaaaccc atcccctcga g
<210> 1618
<211> 110
<212> DNA
<213> Mus musculus
<400> 1618
gaattegegg eegegtegae eagettttgg taccatgagg teaetteaga tgetgeteet 60
ggctgctctg cttctgggga cttttctgca gcatgccaga gctgctcgag
<210> 1619
<211> 503
<212> DNA
<213> Mus musculus
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<220>
<221> unsure
<222> (66)
<220>
<221> unsure
<222> (106)
<400> 1619
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ggcaaacagc agcccccgag cagcgcatgc gcagcctgtg ggcagcgggt gcacctggtg 180
cagoggtact tggcggaggg cagactetac cacoggcact gettecgatg teggcagtgt 240
tecageacge tggteecagg etettacagt agtgggeecg aagaaggeac etttgtgtgt 300
gcagaacget gcaccagget gggtecggga agteggteag gaactagget cettteacag 360
caaaggcagc agccagcggc ggcagaagct aaagatgcag aggataatga cccaagcctg 420
agtgtggctg cagtggctga ggcagacagg ctccaggcca gctccgaggt acagttccac 480
accccaacca agcacacctc gag
<210> 1620
<211> 329
<212> DNA
<213> Mus musculus
<400> 1620
gaattegegg cegegtegae acteaattaa ceatgggega tggtgaeteg ceaatgtgee 60
tetetgeegt tteatteaag ggaataagat getggetgga caaactgtta etttgggete 120
ttacaatttc tatcacactt cagaatgctg cagtggattg tacgagggtg gaaaataacg 180
aattacette tecaaatetg aacteaagta tgaacgtggt caggatggge caaaatgtat 240
ctctgtcttg ttccaccaag aacacatcag tagacatcac ctattcgctc ttctggggta 300
caaaatatct agaaagcaag aaactcgag
                                                                   329
<210> 1621
<211> 267
<212> DNA
<213> Mus musculus
<400> 1621
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ctggtggctt tgatcactgt ggggatgaac actacctatg tagtgtcttg ccccaaagaa 120
tttgaaaaac ctggagcttg tcccaagcct tcaccagaaa gtgttggaat ttgtgttgat 180
caatgeteag gagatggate etgeeetgge aacatgaagt getgtageaa tagetgtggt 240
catgtctgca aaactcctgt cctcgag
<210> 1622
<211> 263
<212> DNA
<213> Mus musculus
<400> 1622
gaattegegg eegegtegae aacatgttgg gaacaetgtt tggetetgee ataggaggag 60
ctetggctgt ggcaggggca cctgtggccc tggctgccat gggcttcact gggacaggca 120
ttgcagctgc ctccatagca gccaagatga tgtctgctgc agcaattgcc aatggaggtg 180
gagttgcagc aggaagectg gtagecacac tecaatcagc aggggteett ggacteteca 240
catcaacaaa tgcacacctc gag
<210> 1623
<211> 185
<212> DNA
<213> Mus musculus
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<400> 1623
cctttaagag gaattagcta tagaaccgct ttgtaaagat gcttcttgat attttacttt 120
tgttcctttc cccaaccatt cccacttccc cttctctcca cagccccgat cccactccac 180
tcgag
<210> 1624
<211> 695
<212> DNA
<213> Mus musculus
<400> 1624
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tetttagete ggettattee aggggtgtgt ttegtegaga tgeacacaag agtgaggttg 120
ctcatcggtt taaagatttg ggagaagaaa atttcaaagc cttggtgttg attgcctttg 180
ctcagtatct tcagcagtgt ccatttgaag atcatgtaaa attagtgaat gaagtaactg 240
aatttgcaaa aacatgtgtt gctgatgagt cagctgaaaa ttgtgacaaa tcacttcata 300
ccctttttgg agacaaatta tgcacagttg caactcttcg tgaaacctat ggtgaaatgg 360
ctgactgctg tgcaaaacaa gaacctgaga gaaatgaatg cttcttgcaa cacaaagatg 420
acaacccaaa cctcccccga ttggtgagac cagaggttga tgtgatgtgc actgcttttc 480
atgacaatga agagacattt ttgaaaaaat acttatatga aattgccaga agacatcctt 540
actittatgc cccggaactc ctittctitg ctaaaaggta taaagctgct titacagaat 600
gttgccaagc tgctgataaa gctgcctgcc tgttgccaaa gctcgatgaa cttcgggatg 660
aagggaaggc ttcgtctgcc aaacagcgac tcgag
<210> 1625
<211> 692
<212> DNA
<213> Mus musculus
<400> 1625
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geatecaget eggtacegag caccagagta atatggtetg caaggtgete ategeeetet 120
gcatcttcac cgcaggactg agggtacagg gttcaccaac agtcccattg cctgtctctc 180
tcatgacaaa aagttcagca cctgtggcca cctggactac ctctgctcca cacactgcta 240
gggccaccac ccctgtagcc agtgccactc acaacgcctc agttctccgc accactgccg 300
catecetgae ateteagete eccaetgace acagagaaga agetgteace ageceacett 360
tgaagaggga tgtcaacage acagacteet cacetgeegg gttceeetea acaagcagtg 420
atggccactt ggcacccaca cctgaggaac acagtettgg aagtectgaa gcaactgtge 480
cagetactgg gtcacagtca eccatgetee tgtettetea ggeteeaace teageaacea 540
catecceege aactteeeta teggagtete tetetgeete egttaeetet agecaeaact 600
ctacggtggc caacatccag cccacagaag ctccaatggc acctgcgtca ccaacagaag 660
agcacagete tagteacaca eccagaeteg ag
<210> 1626
<211> 130
<212> DNA
<213> Mus musculus
<400> 1626
gaatteggee aaagaggeet agggetggat gttcaacaag atttgtgatt ccaaaataat 60
cttctctctt gggattttcc tctgtaaggt caaagccgtt gggtatgatg tacgagtccc 120
cccactcgag
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<210> 1627
<211> 495
<212> DNA
<213> Mus musculus
<400> 1627
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gaattegegg cegegtegac ceetatgetg cetaggetga cettgaacte etgggeteaa 60
gcagtctacc cacctcagcc tcctgtgtag ctgggattat agattggagc caccatgccc 120
agctcagagg gttgttctcc tagactgacc ctgatcagtc taagatgggt ggggacgtcc 180
tgccacctgg ggcagtcacc tgcccagatc ccagaaggac ctcctgagcg atgactcaag 240
tgtctcagtc cacctgagct gccatccagg gatgccatct gtgggcacgc tgtgggcagg 300
tgggagettg atteteagea ettgggggat etgttgtgta egtggagagg gatgaggtge 360
tgggagggat agagggggc tgcctggccc ccagctgtgg gtacagagag gtcaagccca 420
ggaggactgc cccgtgcaga ctggagggga cgctggtaga gatggaggag gaggcaattg 480
gaatgegege tegag
<210> 1628
<211> 602
<212> DNA
<213> Mus musculus
<400> 1628
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gtccattttg ttgcatattc taaggaccca gacataggct tggtggcccg tctcttgttt 120
ttcctggttt atgactttcg gctttgtgga atacggctga gatgaaagga tttattgacg 180
atgcgaacta ctccgttggc ctgttggatg aaggaacaaa ccttggaaat gttattgata 240
actatgttta tgaacatacc ctgacaggaa aaaatgcatt ttttgtgggg gatcttggga 300
agategtgaa gaageacagt eagtggeaga eegtggtgge teagataaag eegttttaca 360
eggtgaagtg caactccact ccageegtge ttgagatett ggcagetett ggaactgggt 420
ttgcttgttc cagcaaaaat gaaatggctt tagtgcaaga attgggtgta tctccagaaa 480
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gagtaaatat tatgacatgt gacaatgaga ttgaattaaa gaaaattgca aggaatctcg 600
ag
                                                                  602
<210> 1629
<211> 167
<212> DNA
<213> Mus musculus
<400> 1629
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atctgttgct agccctgage ttagtgttga caatatattt ggtattgaca aagagtatgt 120
ttgctttagg cccaaaagat aagaaaatag gcatagtgga gctcgag
<210> 1630
<211> 639
<212> DNA
<213> Mus musculus
<220>
<221> unsure
<222> (61)
<220>
<221> unsure
<222> (622)
<400> 1630
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ntgagataat catgaaggca acteteatet tetteettet ggcacaagte tettgggetg 120
gaccatttga acagagaggc ttatttgact tcatgctaga agatgaggct tctggcataa 180
tecettatga ecetgacaat eceetgatat etatgtgeec egtttgegte eageetgaga 240
ccaccgtttc cctacgtccc accagggcta tggcctcatg cgacgagata aaagagcatc 300
eccegeteett gtetatgtgt ggeeatgttg gttttgaaag ettacetgat eagetggteg 360
atagateeat tgageaagge ttetgtttea atattetetg tgtgggggag actggaattg 420
gaaaatcaac actgattaac acattgttta atactaattt tgaagaactc gaatcctcac 480
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atttttgtcc atgtgttaga cttagagetc agacatatga actccaggaa agcaatgttc 540
gcttgaaact gaccattgta aatacagtgg gctttggtga ccaaatcaat aaagaagaca 600
                                                                  639
gctatcaacc aatagttgat tnacatagat gatctcgag
<210> 1631
<211> 390
<212> DNA
<213> Mus musculus
<400> 1631
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tattgcagag tgcccatgga agacggggat aagcgctgta agcttctgct ggggatagga 120
attetggtge teetgateat egtgattetg ggggtgeeet tgattatett caccatcaag 180
gccaacagcg aggcctgccg ggacggcctt cgggcagtga tggagtgtcg caatgtcacc 240
catctcctgc aacaagagct gaccgaggcc cagaagggct ttcaggatgt ggaggcccag 300
gccgccacct gcaaccacac tgtgatggcc ctaatggctt ccctggatgc agagaaggcc 360
caaggacaaa agaaaatgga gggactcgag
<210> 1632
<211> 676
<212> DNA
<213> Mus musculus
<400> 1632
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gaaggtgate cageetgaga aateagttte tgttegtget ggagggtegg etaetetgaa 180
ctgcacagtt acatecetee teeetgtggg geccateagg tggtacegag gtgtaggaca 240
caggagaaac ttgatatatt cttacacagg agaacacttc cccagaataa caaatgtttc 300
agatactaca aacagaagaa acctggactt ttctatctgc atcagttatg tcacttttgc 360
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gattcagtct ggaggcggca ctgagttgtt tgtccttgga gccgctggaa aagagttgaa 480
ggtgatccag cctgagaaat cagtttctgt tcgtgctgga gggttggcta ctctgaactg 540
cacagtgaca teceteatee etgtggggee catgaggtgg tacegaggtg taggacacag 600
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tgctacaaag ctcgag
<210> 1633
<211> 203
<212> DNA
<213> Mus musculus
<400> 1633
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ctacaacttg ttcccttctc atctgcatct cccttctcca gctgatggtc ccagtgaata 120
ctgaggggac cttagaatct attgtggaga aaaaggtcaa ggaacttctt gccaatcgag 180
atgactgtcc ctccacactc gag
<210> 1634
<211> 213
<212> DNA
<213> Mus musculus
<400> 1634
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cctgttcaga atgagcaagg ctttgtggag ttcaaaattt ctgggcctct gcagtacatg 120
tggtggtacc atgtggtggg cctgatttgg atcagtgaat ttattctagc atgtcagcag 180
atgacagtgg caggagctgt ggtaactctc gag
<210> 1635
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425

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<211> 226
<212> DNA
<213> Mus musculus
<400> 1635
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acacagtagg aattcaggtt ctcacaactt ctttgcatct gctttagtta ctgctgctta 180
ggtagagcaa gacagcgctg caatgaaggg acaattattt ctcgag
<210> 1636
<211> 270
<212> DNA
<213> Mus musculus
<400> 1636
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gacgagactg cctgtctgcc tttcaggtgc tgctactgaa ctagatttcc ctgttgttac 120
agaggttatt agtatttatt ttaattttgc tataatgttg ttatgcttta ctgtgtattc 180
tttttgtgtt ttaacttaac agcctgcact aatgtgaata ccacccaact gtgggggtca 240
catctggaac cttgtaaccc tgtgctcgag
<210> 1637
<211> 213
<212> DNA
<213> Mus musculus
<400> 1637
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aatgeecaga acaccetgge ecageecace gtgtggetea ceategeget caccaegget 120
gtetgeatea tgeetgtggt tgeetteege tteeteagge ttageetgaa geeggatete 180
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                                                                  213
<210> 1638
<211> 277
<212> DNA
<213> Mus musculus
<400> 1638
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gatggtttgg aactgttttc tittctttig cigciccca titcitcitt gccicccicc 120
tgetgegeag etgeetetaa ggeageeeee caccetegea gtacettgea acaggetetg 180
gagattgage tgegeetege gaageagtte etetacaete gggggeetge eegaggagag 240
gaacacgttc actggctgtc gccatgacga cctcgag
<210> 1639
<211> 371
<212> DNA
<213> Mus musculus
<400> 1639
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cccttcatca etgeccaggt eccegteetg gaaccacage tgecaggeag tgtetttgae 120
cctattggcc acttcaccca gcccatcttg cacctgccgc agccggagct gcctcctcac 180
etgecceage cacetgagea cageacteca ecceatetea accageatgg etgtggtete 240
tectecaget ttgcaaaatg agetgeeeca acagecatet eggeecagta acegagetge 300
tgetetgece ecaaageeta ecegaceece agetgtgtee egtgeeetgg eceageecee 360
cctatctcga g
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426

<210> 1640

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<211> 194
<212> DNA
<213> Homo sapiens
<400> 1640
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cagagtetat gegetactge aaageeetae tgetaacaat ceaecettte ateettgett 120
ccatccgtcc ccatccaccc ttccaatcca tccatccact cattcatcca tccacctttc 180
catccatcct cgag
<210> 1641
<211> 539
<212> DNA
<213> Homo sapiens
<400> 1641
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gcaacctcaa cataagattt tttttctagt acceteccae tgattaaaga agcaagtttg 120
aggtttcatc cttcaaaagg gggttccgag agagcaccgt agggcttttc tcaaatagaa 180
aagccagatt ttgaaaaaat tttaaagata aaataggaca tattttgcag atatatatat 240
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gagatatggt taactttttt cttttgttgg ttttgactta gatggacacc atactcgag 539
<210> 1642
<211> 193
<212> DNA
<213> Homo sapiens
<400> 1642
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ttaagcatca aacaatttct geetetttet ttttaattet eecagaggga tggttaatge 120
atcacaattt aacttgtcta ttcaggtatt aatagtcaag ggatgcatct gtttgcttat 180
agtaccactc gag
<210> 1643
<211> 192
<212> DNA
<213> Homo sapiens
<400> 1643
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actgetttea cettaaaaga gaaacaagag gaacacaegg acgeeagaaa gagaatgaeg 120
gaaacggagg tgtcatctcc agcagggtcc gaatcctcag atggaaccac aggccaccag 180
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<210> 1644
<211> 958
<212> DNA
<213> Homo sapiens
<400> 1644
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attactttte aatttgttat acacetgtge ceaettteet gagttetgat atagtggttt 120
gacatgtttg tetagttttt teattgaatt ttggagagae getetgttga geteaeteta 180
ctattccagc agttccccct ttaccttttt actttatacc tttcttttag gttctcatat 240
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ttaatttata ggtgctcaga aacacttttt atgcagtgtt taaatgtttt tagaagcttc 360
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<210> 1645
<211> 231
<212> DNA
<213> Homo sapiens
<400> 1645
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ctgagaagca aggaacagag cagtgactgt atcccctggc tacacattag aattacctgc 180
aattetttt ttttttgaga eggagteteg etetgtaace eeteactega g
<210> 1646
<211> 450
<212> DNA
<213> Homo sapiens
<400> 1646
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tttttagaat atcactaaaa tactgttgca atcattttaa gttcaaagtt ttaaaaccga 120
aaatcctata ttetetgaca gtaaattetg gtttetagaa agtageteaa aaacaaatge 180
gtcatcctct actttggaag gttccaaatg ataacagatt caaatctacc aagaccctc 240
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ttttttttt tttttttt tttttttt ggcttcaaat caagtttaat aaataaaaca 360
gcaaaggggg gttcaaggca gttatcactt cacagtgtgg teettggtgg ggtgagggat 420
ggtcgagtcc aactcggaaa ggggctcgag
<210> 1647
<211> 120
<212> DNA
<213> Homo sapiens
<400> 1647
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tatttgtatg tetgtettat gaaggeattt gagtttgtga eetetgetgt getaetegag 120
<210> 1648
<211> 388
<212> DNA
<213> Homo sapiens
<400> 1648
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ttgggtccag aagactggag accacatgtt tggaattatg gctgggcctt ctacatggcc 180
tggctctcct tcacctgctg catggcgtcg gctgtcacca ccttcaacac gtacaccagg 240
atggtgctgg agttcaagtg caagcatagt aagagcttca aggaaaaccc gaactgccta 300
ccacatcacc atcagtgttt ccctcggcgg ctgtcaagtg cagccccac cgtgggtcct 360
ttgaccaget accaccette etetegag
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<210> 1649
<211> 334
<212> DNA
<213> Homo sapiens
<400> 1649
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aaaaaaatat gtaattttta taaaaagaaa acttgttttt cattcaaact tgtcattttt 180
actttggtaa ctttttcata ggtcctaaaa gaaaactgtt ttgagaaact actgtaagta 240
cettttecae atccetttge etteteetet ttecaaatte tttetacaaa aataacaett 300
gatgetggaa aaacccatge tacgteteet egag
<210> 1650
<211> 513
<212> DNA
<213> Homo sapiens
<400> 1650
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acgtgaaget gaageaaaaa tgatggttge taacaaacca gataaaatac agcaagetaa 120
aaatgaaata agagaggaaa ttgaagagtg ggaggcgaaa gtgcaacaag gggaaagaga 180
ttttgaacag atatctaaaa cgattcgaaa agaagtggga agatttgaga aagaacgagt 240
gaaggatttt aaaaccgtta tcatcaagta cttagaatca ctagttcaaa cacaacaaca 300
gctgataaaa tactgggaag cattcctacc tgaagccaaa gccattgcct agcaataaga 360
ttgttgccgt taagaagacc ttggatgttg ttccagttat gctggattcc acagtgaaat 420
catttaaaac catctaaata aaccactata tattttatga attacatgtg gttttatata 480
cacacacaca cgcacccaag cacaccactc gag
<210> 1651
<211> 394
<212> DNA
<213> Homo sapiens
<400> 1651
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agaccagact gagcgatttg gaatccacat cctaatgctg ccacaagctg catgcacaaa 120
gacettagge acatetette atttetetgt acaetggttt etetaetatg tgtgtattaa 180
aatatataat gtggatgata gtaaactgaa caaagcctta attttctccc aagctttgac 240
attgccaagg gcagttagga gacttcagga tcaagtttag gggacaagtt tttttctaat 300
actttcaaaa ggcccaagtg aagtgaggaa ggacacctca ctttctggct ctaaaagcat 360
ggtacatctc acaccaggat aaaagcacct cgag
<210> 1652
<211> 356
<212> DNA
<213> Homo sapiens
<400> 1652
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atacettece teccaggete ettacettgg tetttteeet gtteatetee caacatgetg 120
tgctccatag ctggtaggag agggaaggca aaatctttct tagttttctt tgtcttggcc 180
attttgaatt catttagtta ctgggcataa cttactgctt tttacaaaag aaacaaacat 240
tgtctgtaca ggtttcatgc tagagctaat gggagatgtg gccacactga cttccatttt 300
aagettteta cettettte eteegacegt eccetteet cacceccaeg etegag
<210> 1653
<211> 399
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (236)
<400> 1653
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gcacgagggt gcatcgcggt gattgccaag gagaattacc ccctctacat tcgcagcacc 180
cctacggaga acgagctgaa gttccactac atggtgcaca catctctgga cgtggnggat 240
gagaagatet eegeaatggg gaaggeeetg gtegaeeaga gggagetgta eetgggeetg 300
ctctacccca cggaggacta caaggtatac ggctacgtca ccaattccaa ggtgaagttt 360
gtcatggtgg tagattcctc caaacacagc ccgctcgag
<210> 1654
<211> 333
<212> DNA
<213> Homo sapiens
<400> 1654
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actggctgag aatcaagaaa taaattattt tgtgaaattg aattctgtta gtttctcctt 120
aatctgtatt tgtgtcagat tttcaattgt aaataacttt agcaatttgg agagtctatt 180
attgcctatc aaattgtgta tctgcacagt ttttggaaag ctagagaatg tgactttaca 240
agettatttt ggtgettgga gacaggtegt gaaaaaegag teatgtgaet gagaeteete 300
aaaagtccac cactaattcc ttgttcactc gag
<210> 1655
<211> 314
<212> DNA
<213> Homo sapiens
<400> 1655
gaattcggcc agccaaagag gccggaattt ggccctcgaa gccaagaatt cggcacgagg 60
cataggattt gttcacatag tgttatgcat gatcttcgta aggttaagaa gccgtggtgg 120
tgcaccatga catccaaccc gtatatataa agataaatat atatatatat gtatgtaaat 180
tatagcactg agggeeetge tgeeetgetg gaccaagcaa aactaageet tttggtttgg 240
gtattatgtt tegttttgtt atttgtttgt ttttgtggct tgtcttatgt egtggcagae 300
caagtactct cgag
                                                                  314
<210> 1656
<211> 152
<212> DNA
<213> Homo sapiens
<400> 1656
gaattegegg cegegtegae acegeteact egggggaaat ggattettta ceaeggetga 60
ccagcgtttt gactttgctg ttctctggct tgtggcattt aggattaaca gcgacaaact 120
acaactgtga tgatccacta gcatccctcg ag
<210> 1657
<211> 251
<212> DNA
<213> Homo sapiens
<400> 1657
gaattegegg cegegtegae cetaaacegt egattgaatt etateaetat etgecegtge 60
ccatggatga gatgggggg aagcaaggat ggggcagcca ccggcagtgg ctgggggccg 120
cgatcttggt ggtcctgttc ggggttacct tagtcatcct gacaatctac ttcgccgtca 180
cagegaacag egtggeetgt agagaegggt tgegagegea ggetgagtge eggaacaeca 240
cgccactcga g
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<210> 1658
<211> 227
<212> DNA
<213> Homo sapiens
<400> 1658
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gacaaattag ctagacaaaa agtatgagca agaagaaagt ctgtttgcag attgccgtta 120
tetgggcatt catgettttg geattteate taactateea ttteetageg gaaaatggge 180
aagaagtact atgttcattt aaaaaccatc ttgaaattgt actcgag
<210> 1659
<211> 532
<212> DNA
<213> Homo sapiens
<400> 1659
gaattegegg eegegtegae etegaetgtt teagttttte aetettagea ggaatttgga 60
gatgactttt gatgacaaga tgaageetge gaatgaegag eetgateaga agteatgtgg 120
caagaageet aaaggtetge atttgettte tteeceatgg tggtteeetg etgetatgae 180
tetggteate etetgeetgg tgttgteagt gaccettatt gtacagtgga cacaattacg 240
ccaggtatct gacctcttaa aacaatacca agcgaacctt actcagcagg atcgtatcct 300
ggaagggcag atgttagccc agcagaaggc agaaaacact tcacaggaat caaagaagga 360
actgaaagga aagatagaca ccctcaccca gaagctgaac gagaaatcca aagagcagga 420
ggagetteta cagaagaate agaaceteca agaageeetg caaagagetg caaactette 480
agaggagtee cagagagaac teaagggaaa gatagacace eccaceeteg ag
<210> 1660
<211> 163
<212> DNA
<213> Homo sapiens
<400> 1660
gaattcgcgg ccgcgtcgac aggcccagat gaataaacta attaaaatat ttaaagccca 60
totgtttcat taacagatgo attttaaaac aaatatagtt acttttattg gttacctaaa 120
tctaaaatta ttttgatcaa tgatactaat gaaaatgctc gag
<210> 1661
<211> 423
<212> DNA
<213> Homo sapiens
<400> 1661
gaattegegg cegegtegae egagegetgt acttttaett tgttetgttt taaaatgetg 60
actettetaa gaccegtgea tttecacatg gaattaacca teagtttget aaatttttta 120
aaatettgtt aagaatttga ttgggaaggt ettgaggaag etatagataa gtetgagtag 180
aactgacate tttgtaacaa gtettetaat etatgaatge ggtatatate tteatttgtg 240
taggtetttt taagtteeaa taattttetg taatttggag taeagatttt acacatatet 300
ggttaaactt atacctgagt attttacaat tttactctat tatgcatggt acttgtccat 360
ttcatcttta tttgtattat tattttttta agatggagtt ttgctctgtc acccacgctc 420
<210> 1662
<211> 138
<212> DNA
<213> Homo sapiens
<400> 1662
gaattegegg geegegtega egagttggtg tgtatttett teatateeaa ttteeegttt 60
tectetgeet etgacacetg ceteteettt teteegtget caegttettt catgettagt 120
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138
ttcctcagat ggctcgag
<210> 1663
<211> 307
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (35)
<400> 1663
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agcccgtgcc tgtttaaaac tgatcctaac taaaaacaga cttgagtgga tatgagaatg 120
ttggttagtg gcagaagagt caaaaaatgg cagttaatta ttcagttatt tgctacttgt 180
tttttagcga gcctcatgtt tttttgggaa ccaatcgata atcacattgt gagccatatg 240
aagtcatatt tettacagat acetcataaa tagetatgae tttgtgaatg ataccetgge 300
tctcgag
<210> 1664
<211> 231
<212> DNA
<213> Homo sapiens
<400> 1664
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aggttcgagg cataaggtac aatgagacca cttcggaact tccgatgcat ttgttttctg 120
tetecgtgcc teeggettee caaagagate caggtetttg cgtttecagg gegtggggac 180
                                                                231
ceeggeeece tatgeegeea egeegeeaca eegeeteace eetggetega g
<210> 1665
<211> 292
<212> DNA
<213> Homo sapiens
<400> 1665
gaattcgcgg ccgcgtcgac cataaagaaa ggacacatat ttcaggtgat ggatattcca 60
agtacactga tttgattttt acaaattaca taaatgtatt aaattatcat aaaaataaga 120
aacaaaacaa taaactgaga aaaaaattta aatgacctac aacctaattt ttaatgcctg 180
catggtattc ttgtgtatta atgtgttatt tttacttaac caatttctta ctattgaagg 240
cetgtttact gtttttcact ettetaaace acaatgcaat aaaaaceteg ag
<210> 1666
<211> 112
<212> DNA
<213> Homo sapiens
<400> 1666
gaattcgcgg ccgcgtcgac gtgtgtataa aagggtctaa ttctataaat tatttgtaaa 60
                                                               112
<210> 1667
<211> 501
<212> DNA
<213> Homo sapiens
<400> 1667
gaattcgcgg ccgcgtcgac aaatatttat caatactgat cagactttaa agaaattact 60
ttgtaaacct gctgactacc tgtatgtatt gtatatatat tatatattaa atatataata 120
tattgagatt ataaaagatg aaaatattga atccttataa tattttaagt tgcagaatgt 180
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atgttaaaaa gtgacttgaa tgagatgtat ttgtatctag aaattttatt tctttttgga 240
atgagattaa aatacatttt gaaagttcag cagagtaagc aatttatttg tgttgcctat 300
gtgtgagtgt atttaaagtt ttatggacgc ttaatggttt ctcccaaatt aaaattcttt 360
ttctgtcatt tccaaaaatc agaatctttc cctctcaaat caggtctaca ggtatcatgt 420
atgcctttgt taaataggac ttgttttaaa tttgtagttt ctagaattag aaatattttt 480
                                                                   501
gttttactgg ccaatctcga g
<210> 1668
<211> 182
<212> DNA
<213> Homo sapiens
<400> 1668
gaattegegg eegegtegae etgttgeetg tatacettgt ttttetggtt tttgttgttt 60
ttctaattgt atttttgttt tatacgtcct gtgatattta tgctttaaag aggttctgtt 120
ttgatatgtt tccaggattt gtttcaagat ttagagttcc ttttagcatt cttgcactcg 180
<210> 1669
<211> 295
<212> DNA
<213> Homo sapiens
<400> 1669
gaattcgcgg ccgcgtcgac agttcaccat aagctagaag ttgtgtcaaa ttgagtcaag 60
attgtggett teteagetet etgateeeat tttgagagag acatagetgg gatagtattt 120
tgcttataat aggagtacaa tacatatett ttgaatttat gettaaceet tgageacatt 180
ttttttaatg geetggatea egtttetetg ttttttgaca tgtttgtatg ttgcccatte 240
caattacttc ctactttcag cctatgctga agttcctcct ctggcaactc tcgag
<210> 1670
<211> 156
<212> DNA
<213> Homo sapiens
<400> 1670
gaattegegg eegegtegae gtatattaaa aaatatttaa catttaacaa agteaacact 60
gagacaagta cttactaaaa tacaaagttt ttccattgaa aaaatactgt aattaaactt 120
gttaaaaata tgggtatata ttttactctt ttacaa
<210> 1671
<211> 298
<212> DNA
<213> Homo sapiens
<400> 1671
gaagaagtat eggatagaaa ttaageetat geateeaaat aaeteaeate acacagtgge 60
ttctttggat gaattaaaag tatctatagg gaatataaca ctctccccag caatatctag 120
acacagteca gtacagatga ateggaattt gtetaatgag gagttaacaa aatcaaagee 180
atotgotoca cocaatgaaa aaggaaccag tgatttactt gottgggacc coctatttgg 240
accatetett gatteatett etteatette actaaettea teateateag eeetegag
<210> 1672
<211> 270
<212> DNA
<213> Homo sapiens
<400> 1672
gaattegegg eegegtegae gtteetttaa gteatgaete ttaaagetet tetggteaca 60
geoctageet tgtgteatgg etteaatetg gaeaetgaae ateceatgae etteeaagag 120
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aatgcaaaag gctttggaca gagtgtggtc cagcttggcg gaaccagtgt ggttgttgca 180
gcccccagg aggcaaaggc tgttaaccag acaggtgccc tctaccagtg tgactacagc 240
acaagccggt gtcaccccac ccccctcgag
<210> 1673
<211> 255
<212> DNA
<213> Homo sapiens
<400> 1673
gaattcgcgg ccgcgtcgac agcccacatt attattaata tatagaggga ccataaatta 60
ttattatttt tgccctgtga tataccatag aatacagtaa gatatatgag tcaaagtcac 120
ccactectet gataaatcaa tttcattetg ctatttcatt etettecaat tttgetgtgt 180
aaattttcaa taacaaatct ttattgttga ttatacagta tgtatactac tatcttaatg 240
actaggette tegag
<210> 1674
<211> 225
<212> DNA
<213> Homo sapiens
<400> 1674
gaattegegg eegegtegae attgaattet agaeetgeet egaaaetttt eeeattaaat 60
tegetattta tatgagecag agtgattgat etttettate tgeatattta accaaateae 120
tcctctgttt aaaatccttc ctccagtatt aatatagcat ataaaaccat gcaaatctgg 180
aagcatgcta tetetteaat ettatttea gecacteece tegag
<210> 1675
<211> 113
<212> DNA
<213> Homo sapiens
<400> 1675
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taaaaacatc tatcagtatg ctacatacca tgtttaaaac agcgatcctc gag
<210> 1676
<211> 159
<212> DNA
<213> Homo sapiens
<400> 1676
gaattegegg cegegtegae ggeatectaa aaatagtaaa cataagaeet ttttttaatg 60
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atgatcatgt atttgcagcc tggaagtcct gggctcgag
<210> 1677
<211> 132
<212> DNA
<213> Homo sapiens
<400> 1677
gaattegegg eegegtegae egaagaaata atacagaaac eeateeaaaa ageaaaacaa 60
ggeteattta gatteettee aattatgtgt tttetggege ttettteet tttegttget 120
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gagctcctcg ag
<210> 1678
<211> 136
<212> DNA
<213> Homo sapiens
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<400> 1678
gaattcgcgg ccgcgtcgac cccctcaaaa aatttactag aaacacatac gtttcctggt 60
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ccttctcaca ctcgag
<210> 1679
<211> 454
<212> DNA
<213> Homo sapiens
<400> 1679
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caacctggtg aaaccctgtc tctactaaaa atacaaaatt agccaagtgt ggtagtgtgg 120
gectatagte ceagetaett aggaggetga ggeaggagaa tegettgaac eeaggaggea 180
gaggetgeag tgacacaaga teatgecaet geactecage etgggtgaca gagegagaet 240
ctgtctcaaa aaaaaatttt ttttttaaaa aaaggacgtg agtaacatgc cttagaggtt 300
gggagggagg aaaggctgtt tcctactggg gaaatcagaa aaggtttcaa ggaggaggta 360
acatetgage tgggettttg ettgeagaat geggaeceag aatgattgga gageaggaag 420
                                                                  454
agcaatccac atagaagaag cacagagcct cgag
<210> 1680
<211> 235
<212> DNA
<213> Homo sapiens
<400> 1680
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cctaacccat ctacaaggag aaaaaaacca aatcattaat atgacttgga agatactttt 120
teatettget etggecacat tgegtttete ateceteece attectteae aggtaettta 180
ctctgacatg cagaacaagg agcageteee tgaacacate atgetetete tegag
<210> 1681
<211> 528
<212> DNA
<213> Homo sapiens
<400> 1681
gaattegegg cegegtegae tgetgeagaa gggtgeeaet gatgaagtga gegeaaaeag 60
aagcagetet tetetattaa cagaattaaa cactacaaag tgtttetetg gaggggtgca 120
tttcactctt gctttcttat tttttgtggt ttgacctcag ctatcaccac tgggaagccc 180
aggaaaagct gctctgaata ttcattcact ggacaggtaa agactgggac ttcagaattt 240
tgaagacgat cttagactct tacacctgtg gtcttgctag atgtgttgat tcatgactct 300
ctcaatctgt accccaaaca ggaaggctt gggaagtaaa gtatgtaaac gtgtgttccc 360
ttaaggttag aattatgtat atgtgttata acctcttatt tgtagaaaat ggagaggcat 420
actggtaact aaggagctac aaatacagac aaggaaatga catatatcct aattttaaat 480
ctagattgag aaaaagggtg aaaagaatgt gaaaatatta aactcgag
                                                                  528
<210> 1682
<211> 364
<212> DNA
<213> Homo sapiens
<400> 1682
gaattcgcgg ccgcgtcgac ttagcatcta tcaagggagc accatcatgt acggggcgct 60
getgetgttt gagteggagt tegtgeacat egtggeeate teetteaeet egetgateet 120
caccgagetg etcatggtgg egetgaceat ceagacetgg cactggetea tgacagtgge 180
ggagetgete ageetggeet getacatege etecetggtg ttettacaeg agtteatega 240
tgtgtacttc atcgccacct tgtcattctt gtggaaagtc tccgtcatca ctctggtcag 300
etgeeteece etetatgtee teaagtacet gegaagaegg tteteteece ceagactact 360
cgag
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<210> 1683
<211> 180
<212> DNA
<213> Homo sapiens
<400> 1683
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ttatttgtgt tttgttttat gtttacccaa ataatcattt atttttatt aacatttatg 120
ggttatgttt accatataac ccatttttat accttactgt cctatcccca tcccctcgag 180
<210> 1684
<211> 285
<212> DNA
<213> Homo sapiens
<400> 1684
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ctgctctttg acgtagtggt aaaactcgta ctcgtatctc atccgctggt agaggatctg 120
cacagootea ggagagggga cagtottott cacogtoaca gtoatgttto caagottoot 180
gtgctctggg tctttgtaga tactgagcac gcccttgaag taatgaggta aaaatctttc 240
cagtaacage agcacatett ccaactette aagaateece tegag
<210> 1685
<211> 283
<212> DNA
<213> Homo sapiens
<400> 1685
gaattegegg cegegtegae cetaaacegt egattgaatt etttttete tttgeatttg 60
agtttcagaa atttctattg acatagette aaactcagag attattctet tggetgtgte 120
cagtetactt atgagectat caaaageatt etteatttet gttactgtgt tttttttate 180
totagoatgt ettititatg atticttagt ticcatecet ettetteaag ggeagacaat 240
tecetactgt etttgeatgt tgtecacete eccecagete gag
                                                                   283
<210> 1686
<211> 187
<212> DNA
<213> Homo sapiens
<400> 1686
gaattcgcgg ccgcgtcgac ctggtggttg gggtcaggaa ggggaaagag gaagtacaaa 60
taagcaacct ggacattttt attgtttttc tettatetgt tagtetaett gaagagetat 120
ccttgaaagt gagtgcttta gatctatgaa actgggcagc tatcatagat ctaaaacact 180
cctcgag
                                                                   187
<210> 1687
<211> 306
<212> DNA
<213> Homo sapiens
<400> 1687
gaattegegg eegegtegae aaaacteaca gataacaaca gattttaetg eagteattge 60
agagetegae gggattetet aaaaaagata gaaatetgga agttaceaee tgtgetttta 120
gtgcatctga aacgtttttc ctacgatggc aggtggaaac aaaaattaca gacatctgtg 180
gacttcccgt tagaaaatct tgacttgtca cagtatgtta ttggtccaaa gaacaatttg 240
aagaaatata atttgttttc tgtttcaaat cactacggtg ggctggatgg aggccacaag 300
ctcgag
<210> 1688
<211> 376
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<212> DNA
<213> Homo sapiens
<400> 1688
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attgatttta tegaggecag tetetttagg agteaagage ttgtagacae tgteeetgtt 120
tcagttggtc accgaaaata ctcagtcccc tcaacacccc ctcttcctca tttagccaga 180
ttctgcttat tttaaacatt caacttccat ccctccttcc cgctgactac ccaccacat 240
ctgttcattc gcttcaactc tcaattgcta ttgtactttt atgctgttcc acacgattta 300
ccagttactc ataatatgtc ttgtattatt aatggatatt ttacacattc tagcttgcat 360
ccccaaagc ctcgag
<210> 1689
<211> 359
<212> DNA
<213> Homo sapiens
<400> 1689
gaattegegg eegegtegae gaettgggae aagaagaaaa caagacatet teacaaggaa 60
aaccaagtac taaaaaaagt atcctcccaa ctctgaagag atagaacaca aacatggccg 120
acagtggact tagggaacct caagaggact ctcaaaagga tttggaaaat gatccatcag 180
taaattetea ggegeaggag accacaatea tageaagtaa tgetgaagaa getgagatee 240
tacactetge etgtggtett agcaaagace accaagaggt agagacagaa ggtecagaaa 300
gtgcagatac aggtgataaa tcagaaagtc cagatgaagc aaatgtgggg gatctcgag 359
<210> 1690
<211> 130
<212> DNA
<213> Homo sapiens
<400> 1690
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<210> 1691
<211> 656
<212> DNA
<213> Homo sapiens
<400> 1691
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ggaggcctca caatcacacc agaaggcaaa agccatgtct tacatggagg cagataagag 180
agaatgagaa ccaagcaaaa ggggtttcct cttataaaac catcagatct cgtgagactt 240
acteactace atgagaatgg tatggggeaa eegeeeceat gatteaatea teteceaetg 300
agtccatccc acaacacatg ggaactatgg gaactacaat tcaagatgag atttcaatgg 360
ggacacagtc aaaccatata aacacatttt ctaaattatc agtcaaaaaa caaatcataa 420
taaacataca aatatttgtt gctaaatgat aaatatcaca aaagttgtgt aatggagcaa 480
aagttgtata tagagaggtt tataccctaa aatgtctatg ttagaaaaga aggttgaaaa 540
tttaaaacat aggtattaga tacacagtag gaaaagagta aacccaaaga acatggagga 600
aaaagataat ataggaaagg ggagaaatca atgaagtaga aaaccatctc cctata
<210> 1692
<211> 240
<212> DNA
<213> Homo sapiens
<400> 1692
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tategettae ggetattaaa aeeecageea aatattatte etacagtaaa gaaaataget 120
etgettgeag gatgggeatt gttettatte ettgeatata aagttteeaa aacagaeega 180
gaataccaag aatacaatcc ttatgaagta ttaaatttgg atcctggagc caatctcgag 240
<210> 1693
<211> 217
<212> DNA
<213> Homo sapiens
<400> 1693
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ctataatttg ggttatcttc tttatcatat tccgaattac catagtagtt ggacctattt 180
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<210> 1694
<211> 304
<212> DNA
<213> Homo sapiens
<400> 1694
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agtttttaaa agaggagaaa taatagatac tatagaggag aagggaaaga aaatgaaaga 120
gaggaaaatg tggaagagag aaatagagag aaaaatttct taaaaatcag aggaaaaaa 180
gggggcttgc tataaggaaa tagattttat gagaataact ttaaaaataa atatagataa 240
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actc
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<211> 396
<212> DNA
<213> Homo sapiens
<400> 1695
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attacacett teaaagaata aatgaaaaat agagagacat acetggetee aaaacaagge 180
tgtatcttct gccactgtaa taaaatagat gcaattgagg ttcataaata aaagaataaa 240
tacttaaacg tgaaaggtga ctaaatgcgg ggaagaaaga ttgcaaataa atacatgggc 300
caaagatgtt tggtttgccc atggagtttt aattaaaaaa attaataagg aaaacaaata 360
cccaaaataa ggaagactga caaatgtgag ctcgag
<210> 1696
<211> 215
<212> DNA
<213> Homo sapiens
<400> 1696
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tgacaaaaac ttatattccc atattagctt ttactcagat ggcttatgga gccagtttcc 120
tatetttett gggtgggate agatggggtt ttgetetace agaaggtagt ccagecaaac 180
cagactacct taatttagct agcagcgagc tegag
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<210> 1697
<211> 157
<212> DNA
<213> Homo sapiens
<400> 1697
gaattegegg cegegtegac aggacaagee eccaaegett actaaattet gtgaaageat 60
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gtggagatte acattttatt tatqtatatt etgetatgga attagattte tetggtegte 120
accttggttc tgggacatcc gacagtgcag gctcgag
<210> 1698
<211> 227
<212> DNA
<213> Homo sapiens
<400> 1698
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aactgcttta tcagatggga agttttgtct catgttcact aaatccaagt aagtttaccc 120
tagaattatt aaaaacagag agaagttcta gtttcatgtc tttcacgctt ctgaacaaca 180
actttttgtg ctatctgttc tctgatttac acccaccaga actcgag
<210> 1699
<211> 148
<212> DNA
<213> Homo sapiens
<400> 1699
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gaactttatg atcttccagc tccttgtact cctttgtccc ttagttgcct tcagctcagt 120
actccagaaa atagagagag cgctcgag
<210> 1700
<211> 186
<212> DNA
<213> Homo sapiens
<400> 1700
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ggtgtactgg tgatgacegg aagcatggee ttgattgttt tggattgggt acacaagcac 180
ctcgag
<210> 1701
<211> 205
<212> DNA
<213> Homo sapiens
<400> 1701
gaattegegg eegegtegae caaaaggegg tgtgaagtgt agtgteatat aaaattaaga 60
aatgcagaga ttatttctg tggcactttt tttcccattt tcttccatta gatccctagg 120
cagaattaaa ttgtttagta catcettaat tetetgtaaa cacccactag cacctcctga 180
cctaaatete ccageteate tegag
<210> 1702
<211> 157
<212> DNA
<213> Homo sapiens
<400> 1702
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ggctgtcttc tatattattg ctgcaccttt cctcaccagg ggtgcacaca aaactgggag 120
tgaagatgga atgagaagaa cagagaaaca actcgag
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<210> 1703
<211> 443
<212> DNA
<213> Homo sapiens
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<400> 1703
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acctgcgcta cttcttcctc ttcgtctccc tcatccaatt cctcatcatc ctggggctcg 180
tgctcttcat ggtctatggc aacgtgcacg tgagcacaga gtccaacctg caggccaccg 240
agggccgagc cgagggccta tacagtcagc tcctagggct cacggcctcc cagtccaact 300
tgaccaagga geteaactte accaeeegeg ecaaggatge cateatgeag atgtggetga 360
atgetegeeg egacetggae egeateaatg ceagetteeg ceagtgeeag ggtgaeeggg 420
tcatctacgc gaacaatctc gag
<210> 1704
<211> 171
<212> DNA
<213> Homo sapiens
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gtgatgaaga gcaagatgag acaggcetta qgatttgcca aggaagccag agagagccct 120
gacacccaag cccttttgac ctgtgcagag aaagaggaag aaaacctcga g
<210> 1705
<211> 188
<212> DNA
<213> Homo sapiens
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gcttaaaaat tgacatgcaa tctcttaagt tttttgttca gctacttcac actgagtacc 120
tcaaatctgc tctggagtcg attatgccac ctgtgtgtca ggatgcacct gaaagccccc 180
agctcgag
                                                                   188
<210> 1706
<211> 317
<212> DNA
<213> Homo sapiens
<400> 1706
gaattegegg eegegtegae ettgaagtea ttateatett getgeteate ttteteegga 60
agagaattet categegatt geacteatea aagaageeag eagggetgtg ggataegtea 120
tgtgctcctt gctctaccca ctggtcacct tcttcttgct gtgcctctgc atcgcctact 180
gggccagcac tgctgtcttc ctgtccactt ccaacgaagc ggtctataag atctttgatg 240
acagecectg eccatttact gegaaaacet geaacecaga gaeetteece teeteeaatg 300
agtecegeat cetegag
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<211> 169
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (45)
<220>
<221> unsure
<222> (123)
<220>
<221> unsure
<222> (126)
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<222> (150)
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togtgactgc tggtagtaat atggtggtgc attgttttt ccacccaaac ttaacatagc 120
ctnttnatac atttttatga aaaatttcan tgtcagctgc ctgctcgag
<210> 1708
<211> 116
<212> DNA
<213> Homo sapiens
<400> 1708
gaattegegg eegegtegae ggaetgtace gteetttaca aatgattett atcaagtata 60
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<210> 1709
<211> 156
<212> DNA
<213> Homo sapiens
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caaacaaacg gcattcgccc tcaccacggc ctcgag
<210> 1710
<211> 224
<212> DNA
<213> Homo sapiens
<400> 1710
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gttatacatg gcacttggct tatgttcttt tcttcacctc aacctccttc aaatcttcct 120
teteteett tgggaccate atggatacca cetetgetet ggaaccetae ettetgttee 180
agctgagtgt ggtctcacct tcttttgaac cccttgaact cgag
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<210> 1711
<211> 195
<212> DNA
<213> Homo sapiens
<400> 1711
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aggaaaacac aatcaaattt gagggtgact ttgatttcga gagtgcaaat gcccagttca 120
accgagagga gcttgacaaa gaatttaaga agaaactgaa ttttaaagat gacaaggctg 180
                                                                   195
agtagatggc tcgag
<210> 1712
<211> 243
<212> DNA
<213> Homo sapiens
<400> 1712
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aaaagtttac cccctcttca actgaaccct aaagacactg tcatgaactg tgttgaatgg 120
tggaaatcag tatttetgtt tgtggtgttg ttatttgtta catctgtttc atgtctaggt 180
gttgtgggtg tggctgttga aggaagtttg cagtcttgca gcttttattc cctgtgtctc 240
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243
gag
<210> 1713
<211> 171
<212> DNA
<213> Homo sapiens
<400> 1713
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cccgtgggga gttgggtcat agtcaggatg aattgaggcc ttcagctggc aggggtgcag 120
ccctaggctg gcctggctga caggctggat gggcatggct agtgtctcga g
<210> 1714
<211> 225
<212> DNA
<213> Homo sapiens
<400> 1714
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caqaaqtaqc tqctttttag caataqaatt qtttcaqtat tttgctgctg tttaatgcgc 120
atcttcagaa aacttcccag tggcttcaag gaatttgggg atctctctgg caacaaattg 180
tgaaacatga aatttetget gactttaata tatgaaacce tegag
<210> 1715
<211> 162
<212> DNA
<213> Homo sapiens
<400> 1715
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tcaattttcc agagaactta aacttctaat aatattggta atattctcat ggttactatt 120
                                                                  162
ttatattett teetgetttt tgtagetaet ggtgtaeteg ag
<210> 1716
<211> 172
<212> DNA
<213> Homo sapiens
<400> 1716
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aaaaagcact atgaactaca ggtgtttgac tttcaaaata tattttgtat tgttaatatc 120
ttcacattgt gtgaatactg gaagetgeag atetttgeta ggageacteg ag
<210> 1717
<211> 146
<212> DNA
<213> Homo sapiens
<400> 1717
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ctagtaaagt tgtatctcct tttatagata gtaaaattat gcttcataat ggtagattaa 120
cttgcacaat cctacgcgta ctcgag
<210> 1718
<211> 152
<212> DNA
<213> Homo sapiens
<400> 1718
gaattegegg cegegtegae ettttettt cetteceaat teettgeact etaaceagtt 60
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cttggatgca tettetteet teeettteet ettgetgttt eetteetgtg ttgttttgtt 120
gcccacatcc tgttttcacc cctgaactcg ag
<210> 1719
<211> 245
<212> DNA
<213> Homo sapiens
<400> 1719
gaattcgcgg ccgcgtcgac ggtgcctctc tagcctgcac aaatgattga caagagatca 60
cccaaaggat tatttctgaa ggtgtttttt ttctttattt ttttttttt tttttttt 120
ttttttttttt tttttttgca catgacagtg tttgtattga ggaccttcca aggaagaggg 180
atgetgtage agtggtgcet gggtgeetgg cetecagtgt cecaectect teaccaecee 240
tcgag
<210> 1720
<211> 198
<212> DNA
<213> Homo sapiens
<400> 1720
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tatatagtaa tttctctgta ccagagcagt tcttaaatat ctgtttgaat gttgtttctg 120
gtgggggttt ttctctttct gatttgtcat tttaaaggtg tagacttagc cactgaggag 180
gtggccagcc gactcgag
                                                                  198
<210> 1721
<211> 212
<212> DNA
<213> Homo sapiens
<400> 1721
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atatattaga catteteeet gaggttaaaa acaaaaagta egtgaceagt etggtaagaa 120
gtattaatga agtagetaat attacagett cattttctac tageacetat cataatggtc 180
ttagtcattt cacacaaatc agaacactcg ag
<210> 1722
<211> 415
<212> DNA
<213> Homo sapiens
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tgtgctttta gggtcatatg caagaagtga tacaaccctg aaacctaggc cagtgtcatg 120
gagtttttca cctgtgtttt cttctactgg ctttacagtt tcaggcctta caattaagcc 180
cttgtctatt ttgaatggat ttttgtgtag ggacattccc tccacaaggg cttcctctgg 240
cettgetgat getecteegt etecettgtg teeteteeac teeaceetet teatgtggaa 300
gaaccettgg catectegtg tggcetetet gteetateca geeececatg gtgaceteae 360
acttgcctct ctgacgtggg tctctctccc aaaccctctt ccaggtcctc tcgag
<210> 1723
<211> 252
<212> DNA
<213> Homo sapiens
<400> 1723
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ctaattttta ggttcaagtt cctcatgctt atcaccttgg cctgcgctgc catgactgtc 180
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atcttettea tegetagtea ggtaacggaa ggeeattgga aatggggegg catcacagte 240
caagtgctcg ag
<210> 1724
<211> 228
<212> DNA
<213> Homo sapiens
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tgttccattg ccrcaccgct tctcattatg ctgaccccac aatttccctt ctcaaatttc 180
actectteat acttgtacce tgttggagtg gtcaccatge tactcgag
<210> 1725
<211> 257
<212> DNA
<213> Homo sapiens
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aggaaggca acctgtggag gccccagtca gcccaaaccc gagccaacag ggactagagg 180
cagcagcggc tgcaacagtg agtgaattaa aaccaacaaa ccatcacatt tcatttaaag 240
aggtggcgca cctcgag
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<210> 1726
<211> 183
<212> DNA
<213> Homo sapiens
<400> 1726
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caggeceggg gatetttgte cagtgteeca geceecagee caeceetgee caacactete 180
gag
<210> 1727
<211> 137
<212> DNA
<213> Homo sapiens
<400> 1727
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ctgatgtctc actcgag
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<210> 1728
<211> 198
<212> DNA
<213> Homo sapiens
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ggagctgcta agatgggttt gaactataat gctggcatcg gcattactca gatcttttt 120
gtttttttga tacagagttt cgctcttgtt gcccaggctg gagtgcaatg gcacgatctc 180
ggctcaccac atctcgag
                                                                   198
<210> 1729
<211> 302
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<212> DNA
<213> Homo sapiens
<400> 1729
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agatcagtca aacaaaccag taaaaacttc agcgtcgagc agagttgaaa ctcatcagag 180
tgaagttgct cagtcatttt caggggaaaa agctaataca aaaactcaaa gaagccaaac 240
teagaceatt ttageaaatg etgatacate cacteetaca gattgtteee etaacacteg 300
                                                                   302
<210> 1730
<211> 255
<212> DNA
<213> Homo sapiens
<400> 1730
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ataacaagtc actccagact aacctgtgtg ccagacattt gtgcattgtt gcactttgag 120
gttattattt atcaagttet tgaaggaage agaaagaggg actectetet ceeteegtgt 180
atagteteta tgtttgtget agtttttett ttttttetet gtgteeagte agecacaggg 240
cccgcatccc tcgag
<210> 1731
<211> 243
<212> DNA
<213> Homo sapiens
<400> 1731
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tetttacttg geetgggttt geacceaatt tetggacatt ttatagetga geattacatg 120
ttettaaagg gteatgaaac ttacteatat tatgggeete tgaatttact tacetteaat 180
gtgggttatc ataatgaaca tcatgatttc cccaacattc ctggaaaaag tcttccactc 240
<210> 1732
<211> 205
<212> DNA
<213> Homo sapiens
<400> 1732
gaattcgcgg ccgcgtcgac gaaattacag tttgtatctg tttcttagta ggtgtggcct 60
ttaaaatatg tgcttattca ttgttaaatt ccagaataat agagtaatac ttaatactgt 120
acattcccac ttacgtatat tttattaaaa tttataagca agaaattata cataagtggt 180
catgatetta gggagaette tegag.
<210> 1733
<211> 115
<212> DNA
<213> Homo sapiens
gaattcgcgg ccgcgtcgac ggatgcagtg gctattcaca ggcgcgatcc cactactgat 60
cagcacggga gttttgacct gctccgtttc cgacctgggc cggtcacccc tcgag
<210> 1734
<211> 484
<212> DNA
<213> Homo sapiens
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<400> 1734
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atctaagatt ccacttttca aaatgaagga cctgatactg atcctatgec tcctggaaat 180
gagttttgca gtgccgttct ttcctcagca atctggaaca ccgggtatgg ctagtttgag 240
cettgagaca atgagacagt tgggaagtet geagagatta aacacaettt eteagtatte 300
tagatacggc tttggaaaat catttaattc tttgtggatg cacggtctcc tcccaccaca 360
ttcctctctt ccatggatga ggccaagaga acatgaaact caacagtatg aatattcttt 420
geetgtgeat ecceeacete teccateaca gecateettg aageeteaac agecaggget 480
cgag
<210> 1735
<211> 278
<212> DNA
<213> Homo sapiens
<400> 1735
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tecetetagt tgttccttct ctgtcttctg tgggcttctt attgtctgct cactccttct 180
tragtgteet caratggget teetteeett etragetgat geratracet ggggaatrac 240
agttactcag cagcactggg gcctctccat ctctcgag
<210> 1736
<211> 197
<212> DNA
<213> Homo sapiens
<400> 1736
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ctaagtcctt cagggtcata gctgaaagaa gtatgcattc atggtacgtt tgttttttaa 120
tatgetttat tetgeatatt agtateaeat taeaeagttt ggteatggta titgtaacet 180
ggagagaaca tctcgag
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<212> DNA
<213> Homo sapiens
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ggccttacgc gtggctccga ccttcggtgg aaatgcattt gcgtagcacc acccaggggc 180
tecettgett tggetagage etcataaaag acceeaggtt ttgegaagga ttttgaacac 240
cagcgtettt taacatgtgg aacttteggt tttggtttag etetgtgaac gtatttaaaa 300
cttgctacat tattccacag tgaaagttgg aaccttttta agagttatca tagagtgcct 360
tttaacatct gtcatatttt ctataaacaa cttttcagtg agaagcgtat atagtgtact 420
cgag
<210> 1738
<211> 438
<212> DNA
<213> Homo sapiens
<400> 1738
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cttactttac cagtatttgc tggccgttgg ttaatgtcgt tttggacggg gactgccaaa 120
atccatgage tetacacage tgettgtggt etetatgttt getggetaac cataaggget 180
gtgacggtga tggtggcatg gatgcctcag ggacgcagag tgatcttcca gaaggttaaa 240
gagtggtctc tcatgatcat gaagactttg atagttgcgg tgctgttggc tggagttgtc 300
```

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coletectic tygggeteet gittgagety gicalitytyg elecectygag ggitteeetty 360
gatcagacte etettttta tecatggeag gactgggeae ttggagteet geatgeeaaa 420
atcattgcag cgctcgag
<210> 1739
<211> 423
<212> DNA
<213> Homo sapiens
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<221> unsure
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<400> 1739
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gttaaatgca ttcaggaggt tgtttcttct atctagtttt agaataatat ttcttcggca 180
aaccetgeta actgeggtte accettgaaa acgttaatet gaggaetttt teeaccaact 240
cattaatgat ggtggaagca agtgtattat ttgtttcctg gagaatttga tgaagagcag 300
tetteetetg etgecettta etaageaaaa eetggageag tttaaatagg etaaatggtt 360
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gag
<210> 1740
<211> 279
<212> DNA
<213> Homo sapiens
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agecteccet gecacactec acceecaate tteettteec tteeggeagg gagtgeecte 180
tccataagac gcttacgttt ggacaatcaa ggtgcacagt tgtaagtgac cacaggcata 240
caccttggac attaatgtgc ataaccactt tgcctcgag
<210> 1741
<211> 158
<212> DNA
<213> Homo sapiens
<400> 1741
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tttatttaac ttgatttttg taagcattta gtaactaact gtaaatatcc ctcaagcttt 120
ttetteetgt tttgaaacaa atgegtttaa tactegag
<210> 1742
<211> 444
<212> DNA
<213> Homo sapiens
<400> 1742
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tgggtctttt gatgtgggtt tgattttgct tttgcttttc tagctgagat ttcccaaggg 120
catecteaga agetetgggt gtgccagagg acceecagaa etaagaaggg agggegagtg 180
ggtctccatt ccccgagaag ccaggggcag ggtgggatgg ggaagaccag gagcagagtc 240
gagecteaca gaagecageg egggtetetg eteageacee cageegggge tetggaceca 300
gggtaacage cecagtteat eccaacecet etcagageet caagaggggt ageteggetg 360
ceggaagaga ggggtgccct atccctggca acccctccac gtagegtacc ccagcacctg 420
ccaccgcctt tgccatttct cgag
                                                                   444
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<211> 225
<212> DNA
<213> Homo sapiens
<400> 1743
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tgctacagtg ttttagcttg tgagattctc tgggaccttc cctgctccat catggggtca 120
cctctaggtc attttacctg ggacaaatac ctaaaagaaa catgttcagt cccagcgcct 180
gtccattgct tcaagcagtc ctacacacct ccaagctcac tcgag
<210> 1744
<211> 274
<212> DNA
<213> Homo sapiens
<400> 1744
gaattcgcgg ccgcgtcgac gcaaaatgat ccctggtcaa gatctgttgc ccaagatgtt 60
acaggtcaca atgaccacat ttgaaattgt tttccctttc attttaccct gtgaaagcat 120
ctctcctaga gccttgcaag aggcaggtga cattgtgtcc atatttcttc ctgtttcaga 180
acttctgttt cacaacaatt tctctctcgc tacaagtatt ctttcactca gcactgggga 240
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<210> 1745
<211> 276
<212> DNA
<213> Homo sapiens
<400> 1745
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atgaaaagaa taaagaagta tatatgactc cactcagggg tgtaaaagca acccaagcat 120
caaagtetac teagetaaag actaacagag gacagagaaa agtgacagtt teagetagga 180
cgaacaggag gtgtcagact gctgaagccg actctgaaag tgatcatgaa gttccagaac 240
                                                                  276
cagaatcaga aatgaagatg agactaccaa ctcgag
<210> 1746
<211> 144
<212> DNA
<213> Homo sapiens
<400> 1746
gaattcgcgg ccgcgtcgac tttaagttgc catttgggga ataattgcag tatgtgtaga 60
gactetettg ggatgeaett atatttttat ttaatgacta ettgttttet agttttgeee 120
acaacgtctg aaaccacact cgag
<210> 1747
<211> 165
<212> DNA
<213> Homo sapiens
<400> 1747
gaattegegg eegegtegae eeaegagtta geacaagtgt atteaaccaa caacceetca 60
gaactccgaa acctggtgaa taagcacagt gaaaccttca ctcgcgataa caacatgggg 120
ctggtgaagc aatgcttgtc atctctttat aagaagaatc tcgag
<210> 1748
<211> 212
<212> DNA
<213> Homo sapiens
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<400> 1748
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ttgtattttg cacgaacatg cagttattga agattaggat caaggataga caaggtatag 120
tagttatctt aaaatataca ctcctaagca gtattatttt aaaatccttt accctggcta 180
cctccctac ccgggttccc ctcccactcg ag
<210> 1749
<211> 186
<212> DNA
<213> Homo sapiens
<400> 1749
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ctccttgcct tggctgctgt gttccagatc atctccctgg taatttaccc cgtgaagtac 120
acceagacet teaccettea tgecaaceet getgteactt acatetataa etgggecaaa 180
                                                                   186
ctcgag
<210> 1750
<211> 303
<212> DNA
<213> Homo sapiens
<400> 1750
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aaaccttttc cacatcttcc taagtcaaag cccgcattta tagattctca tagaaccatg 180
tataggtttg cggcacttgt cctgttaagt gtgaatctaa tcaagggcaa atggtgataa 240
aggeeteaca ttgetgetet gttttacaac tetagtaatt tttacetgae aaaaacaete 300
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<210> 1751
<211> 243
<212> DNA
<213> Homo sapiens
<400> 1751
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acggtgttct ttaaaacgct tcgaaatcac tggaagaaaa ctacagctgg gctctgcctg 120
ctgacctggg gaggccattg gctctatgga aaacactgtg ataacctcct aaggagagca 180
gcctgtcaag aagctcaggt gtttggcaat caactcattc ctcccaatgc acaaatactc 240
qaq
<210> 1752
<211> 256
<212> DNA
<213> Homo sapiens
<400> 1752
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cgtgttctcc tacgtgaagg tggcagccag ctccctgctg catggcgggg gccggccggc 120
attgctggca geoggcgtgg coatcoaggt gggctctctg ctcggcgctg ttgctatgtt 180
cccccegace ageatetate acgtgtteca cagcagaaag gactgtgcag acccctgtga 240
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cccattgaac ctcgag
<210> 1753
<211> 211
<212> DNA
<213> Homo sapiens
<400> 1753
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gaattegegg cegegtegac etgtatttea gagtaaaate teetaaagga aataaaaaca 60
cagagttgta atacacatgc ttgcaaaaac attagtcgtg aaatccctag caacaagtca 120
ctggattttt ctctgtcagc acgcgtgtca gctgccaaag aatagactta atgaagaagt 180
gcccacatge tggcagggc ccccactcga g
<210> 1754
<211> 263
<212> DNA
<213> Homo sapiens
<400> 1754
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gattttttca atatattta ttcctggggg ggatcatgct acactctcaa aagaaaatta 120
agaaatcatt cagatcatcc ccccttttta agtagtgtga attgcaaaac ccaacatatt 180
ttttttactg tcagttgcgg tttatttatt ctttaactgt ctggtttagt agtttaatga 240
ttatgaaaaa tgtatctctc gag
<210> 1755
<211> 150
<212> DNA
<213> Homo sapiens
<400> 1755
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ctacctttga atgtcttgct ccggtgtttc cctggagata tcttgtccaa gtatgaacag 120
cagtgttggc cacaaactca tcagctcgag
                                                                   150
<210> 1756
<211> 257
<212> DNA
<213> Homo sapiens
<400> 1756
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gatececete tttttctatg gagaacgttg cettatacte tetaettcag atgatgaaca 120
ctgtgtactg tgtgtgcttt aaagaagttt tatttaattg ctcccttctt cctttccttg 180
ttattcacct ccctgatgcc tgctttcagt tgagggttgg gggcaatgat gagcatatga 240
atttttccc actcgag
                                                                  257
<210> 1757
<211> 237
<212> DNA
<213> Homo sapiens
<400> 1757
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eccacgtgcg atcetteccg gcaacttttt cgagaaaaat gcccaaattc aaggcggccc 120
gtggggtggg gggtcaggaa aaacatgcgc ccctggccga tcagatcctg gctgggaatg 180
cggtgcgggc ggggtccgg gagaagcggc ggggtcgcgg gacaggtgaa cctcgag
<210> 1758
<211> 171
<212> DNA
<213> Homo sapiens
<400> 1758
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ggaaaaaatc catttttggg gattgcttac atcgctqttg qatccatctc cttccttctg 120
ggagttgtac tgctagtaat taatcataaa tatagaaaca gtagtctcga g
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<210> 1759
<211> 585
<212> DNA
<213> Homo sapiens
<400> 1759
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cteagettea aagaaceee getettgett ggtgttetge atecaaatae gaagetgega 180
caggcagaaa ggctgtttga aaatcaactt gttggaccgg agtccatagc acatattggg 240
gatgtgatgt ttactgggac agcagatggc cgggtcgtaa aacttgaaaa tggtgaaata 300
gagaccattg eceggtttgg ttegggeeet tgcaaaacce gagatgatga geetgtgtgt 360
gggagacccc tgggtatccg tgcagggccc aatgggactc tctttgtggc cgatgcatac 420
aagggactat ttgaagtaaa tccctggaaa cgtgaagtga aactgctgct gtcctccgag 480
acacccattg aggggaagaa catgtccttt gtgaatgatc ttacagtcac tcaggatggg 540
aggaagattt atttcaccga ttctagcagc aaatggcaac tcgag
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<211> 274
<212> DNA
<213> Homo sapiens
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ctgcatagtg ttcctgatga cgtgcaaacc ccccctatat atgggccctg agtatatcaa 120
gtacttcaat gataaaacca ttgatgagga actagaacgg gacaagaggg tcacttggat 180
tgtggagttc tttgccaatt ggtctaatga ctgccaatca tttgccccta tctatgctga 240
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cctctcctt aaatacaact gttcagggct cgag
<210> 1761
<211> 400
<212> DNA
<213> Homo sapiens
<400> 1761
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tgagaagetg caagaagetg tgggggaaagt tatcatcaat gccacaacet gtactgtcac 180
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gaaatgtcag actcggcgct tagaatgtct gaccaactgg atctgtggga tgctccattt 300
caccattete attggcaagg aatttgaget tagetgtetg agttcagaca tettggagtt 360
tggacaggaa gctttccggt tcacctgtga ctcactcgag
<210> 1762
<211> 226
<212> DNA
<213> Homo sapiens
<400> 1762
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cacctggcct cgtttccttc atagttatat gttacctagt tttttgtttt gttttattta 120
tttatttgag acagggtctc actctattgc actccagcct gggcaacaag agcaaaactc 180
agteteaaat aataataata acaacaaett aatgtgeeag etegag
<210> 1763
<211> 184
<212> DNA
<213> Homo sapiens
<400> 1763
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gaattegegg eegegtegae geetteeeag caagaaagaa egatetggga agteeeaeeg 60
gcacaaaaag aaaaagaagc acaaaaaatc cagcaaacac aaacgtaaac acaaggctga 120
cacagaagag aaaagctcta aggcagagtc aggggagaaa tctaagaagc gcaagaaact 180
<210> 1764
<211> 519
<212> DNA
<213> Homo sapiens
<400> 1764
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ttgtccttat ctgaaagcca tgcggcatcc aacgatccac gcaactttgt ccctaacaaa 120
atgtggaagg gattagtcaa gaggaatgca tctgtggaaa cagttgataa taaaacgtct 180
gaggatgtaa ccatggcagc agetteteet gteacattga ccaaagggac tteggcagec 240
cacctcaact ctatggaagt cacaacagag gacacaagca ggacagatgt gagtgaacca 300
geaactteag gagttgeage tgatggtgtg acctecattg eteceaegge tgtggeetee 360
agtacgactg eggeeteeat taegactgeg geeteeagta tgaetgtgge etceagtget 420
cccacgactg cagectecag tacaactgtg geetecattg eteccacgae tgcagectec 480
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<210> 1765
<211> 309
<212> DNA
<213> Homo sapiens
<400> 1765
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tggaccetca ttgatggatc tgaaatggaa tgggatttta tgtggcactt gagaaaggta 120
ccccggattg tcagtgaaag gactttccat ctcaccagcc ccgcatttga ggcagatget 180
aagatgatgg tanatacagt gigtggcatc gaatgccaga aagaactccc aactcccagc 240
etttetgaat tggaggatta tettteetat gagaetgtet ttgagaatgg caceegaace 300
aagctcgag
                                                                   309
<210> 1766
<211> 201
<212> DNA
<213> Homo sapiens
<400> 1766
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gaaatcctga ttctgtcccg ggttctttgc tacttccttg aaaatactct agcttcatgc 120
tgggtcaagg tggtttacet ggatgacee ecteeceege ectegeecea teceaggtgt 180
gtgccacacc cagtactcga q
<210> 1767
<211> 205
<212> DNA
<213> Homo sapiens
<400> 1767
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agccatgatg actttgtget tgctctcctt ccagttgttt atcctctgct tactccttga 120
cecagtgtet gtgtggtetg ggtegeetee gaggeegagt cectegttge caageecage 180
                                                                   205
aggeeteget eeceegegae tegag
<210> 1768
<211> 215
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (87)
<220>
<221> unsure
<222> (103)
<220>
<221> unsure
<222> (166)
<400> 1768
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tgtccccggg ggtttcttct ttgcttgctt tcttcctcct tacccnaccc cccactcact 180
cacacacaca cacacacaca cacacatege tegag
<210> 1769
<211> 167
<212> DNA
<213> Homo sapiens
<400> 1769
ccatcatgca egecageece aegggeetge teetgaeggt getggtggee etcacetaca 120
taatggctct cctatacgaa gagcccttca ccgctgacta tctcgag
<210> 1770
<211> 182
<212> DNA
<213> Homo sapiens
<400> 1770
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tgtatttatt tatatttatt ttttcaaaat ccgaaatcat ttgcgagccg caatcgtcgt 120
ctgcctgtgt gggggggccc agggcctgcc ttgcacgttg cagcctctct ggccctctcg 180
<210> 1771
<211> 468
<212> DNA
<213> Homo sapiens
<400> 1771
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tccacaggac acaactggaa atgaccgatt gccaggtcca agagcggttg caggtgatat 180
tataaaagca gcaactgaac tggatagagt gcatatcgtc ggtatcttgg atatctgtaa 240
tttgggtaat aataaagtgg aagtctattt gcacaagatt tatagtccag agaatacttc 300
ttaaaagtta gcaaatgaaa ttattacaga ttatacgagt gtactgcttt aaagatattc 360
catcattttg ctggtaattt cagtaactgt tttcagcaag aatattacat gagctctaaa 420
gttattaagc agttttatgt tcgttttgtg tttagggaag ctctcgag
<210> 1772
<211> 347
<212> DNA
<213> Homo sapiens
<400> 1772
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cgccatactt tcccaccagg tctgaagtta accactacag ttcacatttt ctgtttgttt 120
attttgttt gtttttagag acaggatttt tctctgttac agaggctgga gtgcagtgtc 180
accatcatag etcaagcaat acteetetet cagtetetag agtagetggg atgacagacg 240
tgcaccacca tgcctggcta attttttttg tagagatggg gtctctctat gttgcctggg 300
cttgtctcaa actcctggct tccagcaatc ttcccacccc tctcgag
<210> 1773
<211> 294
<212> DNA
<213> Homo sapiens
<400> 1773
gaattegegg eegegtegae etttettete tgatatettt tggtaaaata tttgttacaa 60
taaccaagga gacaactttg agtaaatttc ccattatttt tgaagcctgt tgccccttct 120
gccagggaga aacttcaccg cctgggtcca tatactttca ctaattaact gagcaccagg 180
ttcctggaga aacatattta ttaaatgtca aaaatttggg gacatttagt cttcattttt 240
ggtcttctgt gtccagtggc atttttccta aattatgtcc agcatctcct cgag
<210> 1774
<211> 267
<212> DNA
<213> Homo sapiens
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gttaaaagat gcactaaacc tgatagaaaa gaattccaga agattgccat ggcaacagca 180
ataggatttg ctataatggg attcattggc ttctttgtga aattgatcca tattcctatt 240
aataacatca ttgttggtca gctcgag
<210> 1775
<211> 242
<212> DNA
<213> Homo sapiens
<400> 1775
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ctttgaagac caaaactaaa ctgaaattta aaatgttctt cgggggagaa gggagcttga 120
cttacacttt ggtaataatt tgcttcctga cactaagget gtctgctagt cagaattgcc 180
tcaaaaagag tctagaagat gttgtcattg acatccagtc atctcttcct aaggatctcg 240
ag
<210> 1776
<211> 243
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (22)
<400> 1776
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gattttttcc agcagacctc ctcttctatc ttgtgtgttg ctttatatgt cgctcttgac 180
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qaq
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<210> 1777

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<213> Homo sapiens
<400> 1777
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gettttgtgt tgeagtactg caageatetg geeetgtete ageeatteag etteaceag 120
caggacatgc ccaaacttcg tcggcagatc tacaaggagc tgtgtcactg caaactcact 180
gtgtgagcct cgtaccccga ccctcgag
<210> 1778
<211> 219
<212> DNA
<213> Homo sapiens
<400> 1778
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tgttggagac tagcttgggg gacccactct ggctgtgccc actgctccat ccctggccca 120
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<210> 1779
<211> 194
<212> DNA
<213> Homo sapiens
<400> 1779
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aaggcaaact cgag
<210> 1780
<211> · 343
<212> DNA
<213> Homo sapiens
<400> 1780
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agaaggtttt tetgtteagg aacagttage tactggtgga attetgtggt tteetgacet 120
cactgcaccc gactccactt ggattctgcc tatctctgtt ggcgtcatca atttgttaat 180
agtggagatt tgtgctctac aaaaaattgg aatgtctcgt tttcagacgt atattacgta 240
ctttgtccgt gcaatgtcgg tgttgatgat accaattgct gcaacggtac cctcatcaat 300
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<210> 1781
<211> 337
<212> DNA
<213> Homo sapiens
<400> 1781
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tettggagat ataattttac teacagteet agettteaga atgeteteet tgaaatttet 180
cgtctgttcc ttttttctga agaacatgca tcctgaatqt tggatcatga aaagtcttga 240
atgetgtact agetetteet ggetaggeag tggggaacca etgtttttta atgttgttat 300
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<210> 1782
<211> 266
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<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (89)
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<221> unsure
<222> (132)
<400> 1782
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totggttggg angtggagtt gttgctggac totcaggcga agotgaagtc attgaagtgt 180
gtgaagetet gtgettgeat gagggeaage aaggaatgge tgtgeetgag getgetetgg 240
gaaactcctt gccccttaac ctcgag
<210> 1783
<211> 382
<212> DNA
<213> Homo sapiens
<400> 1783
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tgttcctcac tcagcagtgt ggggatgtgc caactgccga gtggttttgt ccaacccttc 180
tgggaccttt acttetecat getaecetaa egactaecea aacagecagg ettgeatgtg 240
gacgeteega geeeceaceg gttatateat teagataaca tttaacgact ttgacattga 300
agaagctccc aattgcattt atgactcatt atcccttgat aatggagaga gccagactaa 360
attitgtgaa gcaaccctcg ag
                                                                   382
<210> 1784
<211> 202
<212> DNA
<213> Homo sapiens
<400> 1784
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tgggagagtg gttttacatg tctgtgtatt catgactttg ggagtgggta ggatcattgg 180
agagagaact gcacageteg ag
<210> 1785
<211> 224
<212> DNA
<213> Homo sapiens
<400> 1785
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ggaagcgaat cccccaagtg atgtatatct ctcatcaaga gacagacaaa tacttgattg 120
grattitgca aatcitgaat tigctaatgc cacacctcic tcaactcict cccttaagca 180
ctgggatcag gatgatgact ttgagttcac tgggcagact cgag
<210> 1786
<211> 221
<212> DNA
<213> Homo sapiens
<220>
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<221> unsure
<222> (91)
<400> 1786
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tttgttttcc attatttttt tttcacactt ttactttgta tctgaatgtg actttagcca 180
gtaggagagt gtcttgtaga gagcaagtgg tcggtctcga g
<210> 1787
<211> 181
<212> DNA
<213> Homo sapiens
<400> 1787
gaattcgcgg ccgcgtcgac ggacaattgc aacgactcca acaaaaccag ttcaaggctt 60
aggaactgtg tetettagtt teaagaaaat gaattggatt ttatttggta tatgtgtgag 120
tatgattaca gatcaagaca cacaccccta tacacaccca cacccccca cacaactcga 180
<210> 1788
<211> 207
<212> DNA
<213> Homo sapiens
<400> 1788
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cctcttccca ggcaagtaga aaaaaggcag tctggagtca aacagtgagt tcagtttcca 120
gctaggacct tgtggcaacc ttatataaca tctgtaaacc atagttcctc cttatttaaa 180
atgaggataa tcgcactcgc cctcgag
<210> 1789
<211> 160
<212> DNA
<213> Homo sapiens
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gcccactccc ttaactttct tgggctggat tgctgcagtt gccactgtcc cgttggcacc 120
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<210> 1790
<211> 191
<212> DNA
<213> Homo sapiens
<400> 1790
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ttggctgttt tgttctattt tgctctaatc ggtcagttat tcctagctag tctatgtatt 120
tacttatatc tgctgctttt ttgtactgtg ctgaagcttt atgtagcaag caacttagcc 180
gacaactcga g
<210> 1791
<211> 167
<212> DNA
<213> Homo sapiens
<400> 1791
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tccttgacca agaagtaatg ccaccatttc ttcatgtcct tctcgag
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<210> 1792
<211> 213
<212> DNA
<213> Homo sapiens
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accatagggg aaaaaagtca gtaaaactaa gacttcaatt tttgaaacaa agaattgatt 120
tttgaaaaat aaaatcaaca aactcttgga ctaagaaaga ggacaaaatc agaaatgaaa 180
atggagaata tattacaaca ggtactcctc gag
<210> 1793
<211> 227
<212> DNA
<213> Homo sapiens
<400> 1793
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ctctgtggct gttttatttt tactttgata tgcttttact tctttcttat gttgttttct 180
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<210> 1794
<211> 198
<212> DNA
<213> Homo sapiens
<400> 1794
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taccagetea tgaatggate attacagtet etecagagge ttagaatgat teagaatgtt 180
caatgcacag atctcgag
                                                                   198
<210> 1795
<211> 245
<212> DNA
<213> Homo sapiens
<400> 1795
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aatttagtgt attgactgcc tcagtgacac aatttatett taaaggtgtg gaagetggtg 120
gggaccaaat gttacctgtg tttttgctgt tgattgctat tttcagaagc aaaccatgtt 180
tttcacttac agtaggagtc aacaaatttg ggattttaga agggggagga gggagcggac 240
tcgag
<210> 1796
<211> 281
<212> DNA
<213> Homo sapiens
<400> 1796
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ggacaatgtg etgetgetta tectatttet atatggtete tgettggggt ggttatgtat 120
ttatcatcaa tettatteea etgeatgtat ttgtgttgtt aetgatgeag agatacagea 180
aaagagteta catageatat ageaetttet acattgtggg tttaatatta teaatgeaga 240
taccttttgt gggattccag ccaatcagaa cacatctcga g
<210> 1797
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<211> 240
<212> DNA
<213> Homo sapiens
<400> 1797
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gttttaagtg aaatteettt tatgtetact tggtttttac ttgtgteaac atttagtatg 120
ctacetette tattgaagga tgaacteeta atgecetetg ttgtgacaac aatggcattt 180
tttatagett gtgtaaette etttteaata tttgaaaaga ettetgaaga agaaetegag 240
<210> 1798
<211> 281
<212> DNA
<213> Homo sapiens
<400> 1798
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taagaataaa cttttgtaaa aaaagaaaaa tettacagtg geteateate tetttagttg 180
ttttcactaa gtcgttccta ccataactgt gaatttaaag taaaaccagc tcagaatctt 240
gccagagtct gttctttggt ccttgttcta cccatctcga g
<210> 1799
<211> 209
<212> DNA
<213> Homo sapiens
<400> 1799
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tttctttccc attgaatcaa gttacataca agtttctaac cattcctgtt ataggctttg 120
gtgattgact teattttaat aatettttta tttcattgce tttcaeccag ttttttaaac 180
                                                            209
teatgaaatt ceacacecea ettetegag
<210> 1800
<211> 202
<212> DNA
<213> Homo sapiens
<400> 1800
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gctaggagag agaaaatttt ttgctaggag aggtttcaag gtaagagtat atactttaaa 120
catgtatata aatgtttttg ctacttttct gtcactacct ttcttacctt gtcctttaca 180
tggatatagg aagaaactcg ag
<210> 1801
<211> 131
<212> DNA
<213> Homo sapiens
<400> 1801
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cattcctcga g
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<210> 1802
<211> 265
<212> DNA
<213> Homo sapiens
<400> 1802
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ctgtatetta acacccagaa caaatctagg cactcagttg gettetcagt ggttttttgt 120
ttgaateeeg tgteetetga tgtatttgea etattttget ttattattta aettettaet 180
tatgtttttt gtctctgcag tagtatcact gcaggagagt gaagagttgg taagaaagtt 240
tcatcattta caggtgattc tcgag
<210> 1803
<211> 271
<212> DNA
<213> Homo sapiens
<400> 1803
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aatagttiga gtaatttigt tggtetetgg gatetagggg ggattegtaa tigtetagti 120
agggcagggg aatattgaat tggtgtatga gagtttggta aaggagatag ttgggagtat 180
gggctctgga ttggttggtt tgtatatgaa aggcatgctt gcagtggagt ttatcatcta 240
tgcattagct tgccctggga ggggcctcga g
<210> 1804
<211> 180
<212> DNA
<213> Homo sapiens
<400> 1804
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aaaacattac ctttaactct tttttttcc tttcttaggc ttgaaaagga atacactaca 120
ataaaaacga aagaaatgga agagcaagtt gaaattaaag taagcagtcg ggggctcgag 180
<210> 1805
<211> 195
<212> DNA
<213> Homo sapiens
<400> 1805
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gtaaattgtg cgtccatatt cattttgtca gtagccagga gaaatgggga tgggggaaat 180
acgaetteae tegag
<210> 1806
<211> 303
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (271)
<400> 1806
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cagccagcaa tgaatgaaag gtggggtggg gccgctggca gggcgaggcc ttgtgagcca 120
tgtgcctgtg ctctcaagtc cgaagtttgt ggggatgcat gcaggagatt ctggccctga 180
ttgtttcccc agaaccagga tgcgttctgg ttggcaggac aactggcctt cacttggtgg 240
cetteagtgg gtgtteteat tggttgeett ngtttagtge ceteagttgt atetettete 300
gag
<210> 1807
<211> 191
<212> DNA
<213> Homo sapiens
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cctgtgaccc ccccatcatc catgggaacc tgacctgtga caccatcttc atccagaaca 180
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acggactcga g
<210> 1808
<211> 282
<212> DNA
<213> Homo sapiens
<400> 1808
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actgtaagag aaagccaata ctatttatat ctgaatcaac agtagcataa acatttttta 180
attgagattg tattttaatc ccttttgtta aagtacatta acaacagttt ttcacaggat 240
atgaacttgg cgaaattagt tettaatetg aatatacteg ag
<210> 1809
<211> 269
<212> DNA
<213> Homo sapiens
<400> 1809
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ttttcatggt gttgatctgt ttaggaagtg gtatcatgag agatatagcc cacttagaaa 180
tcacagctct ttgtccctta agagatgtgc cttctcacag taaccatggg gatcctttat 240
                                                                   269
catattacca aactggtgac ttactcgag
<210> 1810
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1810
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tttcaacaac aggcatgtta catggaattg gaaaatttat agttgaaata atttgctgtc 120
gtttcagact tggatcctat aaacctgtca attctgttcc ttttgaggat ggccacacag 180
acaaccactt acctctttta gaaaataata cactcgag
<210> 1811
<211> 250
<212> DNA
<213> Homo sapiens
<400> 1811
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ctgtttggat cetgctetca ceattgetge cagtttgget tttaagtege egtttgtate 120
tccctgggat aaaaaagaag aagctaacca gaaaaagctg gaatttgcat tcgcaaacag 180
tgattatctg gcccttctac aagcgtataa gggatggcag ctaagtacaa aagaaggcgt 240
                                                                   250
gcttctcgag
<210> 1812
<211> 246
<212> DNA
<213> Homo sapiens
<400> 1812
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ctttccatca acatgaacct caacttgata tgatgcagat tgaaggaaat cacccataat 120
tecacattaa gaaggeetgt gatattttat gggaaaataa atagagaaaa tgetaacaga 180
aaccctatta agcattaagc tttatggagc aaagacaaat ccagtggtga aagatacaca 240
ctcgag
<210> 1813
<211> 196
<212> DNA
<213> Homo sapiens
<400> 1813
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ccaggtgtgc ttcctgtaca gcctgtggaa tgttaccaaa gacgttggaa gaggtggcta 120
tggacatcac ctgggagaag tggaagcaaa tggacactgt tcagaagtcc atatacagaa 180
acatgttgga ctcgag
<210> 1814
<211> 264
<212> DNA
<213> Homo sapiens
<400> 1814
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catcaagtaa ttattgctgt ggtctttcta ctccacaaaa taattttttc tttttgcagt 120
tgaaaattaa ctgcattatt aactaattaa taaaataaat caagtggtat aagggattag 180
tttaccctca agccgatgac tccatggcta ctgatattag ttagtttagg atttttaaaa 240
agcatatcag acccccaact cgag
<210> 1815
<211> 301
<212> DNA
<213> Homo sapiens
<400> 1815
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tcaccattag ggaagacaga gtagctcaga aatcagtagt gaggaggagg acagcacttt 120
gtgtggtatc ttgctctagg agcattttca agccatcaga agtgggactc ttgaagacta 180
tttctgactt tctcagcaca aattaagata ataggagatg gaggctccat ttgaaaaaca 240
ttttggttgt ataatggtta gcataaaaca tactttttc aagttaactc aggcactcga 300
<210> 1816
<211> 214
<212> DNA
<213> Homo sapiens
<400> 1816
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ggtgcgtatt tggtagattt tatggatgga tttcgtgaag gataaatagc agagtcctga 180
ggggggaaaa aaggatagaa gggccaaact cgag
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<210> 1817
<211> 226
<212> DNA
<213> Homo sapiens
gaattegegg cegegtegae geaetteeta getatteeta etaeettteg tetteatgat 60
tttcttactt ctatggctgt ttccgcacct tgaggttttt cttccttcct atattcattc 120
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gtcccccatc acccccgcaa atcatcctct ctacttacaa ctcgag
<210> 1818
<211> 248
<212> DNA
<213> Homo sapiens
<400> 1818
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cctattctga gtatcctccc ctttccaccc caacatagta tctttcaaag aatcccttgc 120
ataggagact gtaaccgaaa gtgttagctt ttcaccaggc tatttacact ttacgcctta 180
gttctaattg tggaaggaaa aacttttccc ttgtcaaagt aatgttatgg cttcagagaa 240
cactcgag
<210> 1819
<211> 165
<212> DNA
<213> Homo sapiens
<400> 1819
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tttaaaaata tgcatacttt cagaactttt accaaaacac tcgag
<210> 1820
<211> 233
<212> DNA
<213> Homo sapiens
<400> 1820
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tetgeattat actgacatea ttatatttge caattgattg tgagetaatt ggggttatag 180
aaacgtgcta tagcataaca gactgtaatt atttctctct aggcgttctc gag
                                                                   233
<210> 1821
<211> 267
<212> DNA
<213> Homo sapiens
<400> 1821
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attttcttca atacaagggg aaaatattct tgcggattcc caacgttttg tgatatgagc 120
agaaaatcat tagcatttcc catcatttgt tcatatttgt gttttctgac agttgccact 180
tgtagcattg cctgtactac agtatttttt gccaacctca ggcatactcg ttacatctgt 240
attgaacttt cggccctaaa actcgag
<210> 1822
<211> 248
<212> DNA
<213> Homo sapiens
<400> 1822
gaattegegg eegegtegac ectaaacegt egattgaatt etagacetge etetggtttg 60
coggacttgt ctttctgcac ctgatggttc agctctgcaa ggatcgattt gaatatcttt 120
cettetegee eaceaegeeg atgageagee aeggtegagt cetgtecetg ttggttgeea 180
tgctgctttc ctgctgtgga ctggcggccg tctgctccat caccggctac acccacgaaa 240
tgctcgag
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<210> 1823
<211> 282
<212> DNA
<213> Homo sapiens
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aggecatett geactgeetg gttaateatt cagaaatatt gtaceaatte tactetttee 120
ctccttcagt gacttactat tgtctgcaga atgaagtata agttccttat tcaaggactc 180
atatgcagga actiticcaga attgtcctct tectatitice etagtgccat tgacategtt 240
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<210> 1824
<211> 277
<212> DNA
<213> Homo sapiens
<400> 1824
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tcaaaatata ggtgtttttt gtcctggtat atcgtcattc catctgcagc tggagctgga 180
atcccattga tcttctagct accattcatt ttcttcactg ttcacaaaag aagagtgtga 240
aattcagtga atgctgttac taatcctgtt actcgag
<210> 1825
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1825
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<211> 195
<212> DNA
<213> Homo sapiens
<400> 1826
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<211> 196
<212> DNA
<213> Homo sapiens
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<211> 205
<212> DNA
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<213> Homo sapiens
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tcaaactcat actccaagac tcgag
<210> 1829
<211> 250
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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gtcagatgcc aaaaaagccg cctcaaagac gctgctggag aagagtcagt tttcagataa 180
gccggtgcaa gaccggggtt tggtggtgac ggacctcaaa gctgagagtg tggttcttga 240
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<210> 1831
<211> 215
<212> DNA
<213> Homo sapiens
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<210> 1832
<211> 173
<212> DNA
<213> Homo sapiens
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<210> 1833
<211> 204
<212> DNA
<213> Homo sapiens
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<210> 1834
<211> 187
<212> DNA
<213> Homo sapiens
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tctcgag
<210> 1835
<211> 137
<212> DNA
<213> Homo sapiens
<400> 1835
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<210> 1836
<211> 235
<212> DNA
<213> Homo sapiens
<400> 1836
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cagococcat totoaatoca coottttoca agttgattgo ccaaggactt ctaacaataa 180
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<210> 1837
<211> 153
<212> DNA
<213> Homo sapiens
<400> 1837
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<210> 1838
<211> 196
<212> DNA
<213> Homo sapiens
<400> 1838
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aagtttcctg ctgatcttgg cactgaccga agcgctggca tttgccatcc aggaaccatc 120
teccagggaa tetetteagg tecteeette aggeaeteee eegggaacea tggtgacage 180
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<210> 1839
<211> 292
<212> DNA
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<213> Homo sapiens
<400> 1839
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eggetggeac ttagtacaga tgccartegg ceaegggagg tgcccctege accetgaett 180
aatottgcag ctgatgttct ccagggcaac aaacttcccc ctacttgtca gcccctccag 240
tcagcttccg gatgtaggcg tggaaggaca tgtgcttcac gggaggctcg ag
<210> 1840
<211> 312
<212> DNA
<213> Homo sapiens
<400> 1840
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gccttegtgc tgatctactc gtcgcgggat tgccagcccc tgcagggggg ctccatgtcc 180
taccegetge agetetttig tgcagatgge gagtacaact ccatggetge ggccttette 240
aacacceegg agaagagegt ggtgageete tteeaegace egeeaggete etacaaeeee 300
ccaacceteg ag
<210> 1841
<211> 249
<212> DNA
<213> Homo sapiens
<400> 1841
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ggggtgaggg tgtttcagca ggtggegcag gcctccaagg accgcaacgt ggttttctca 180
cectatgggg tggcctcggt gttggccatg ctccagetga caacaggagg agaaacccag 240
caactcgag
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<210> 1842
<211> 779
<212> DNA
<213> Homo sapiens
<400> 1842
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ttgaagatgc aagtgaaccc ttgatagatc ctgtatatgg acatggcagc caaagtttaa 180
ttaateteet getgaeggga eatgetgttt etaatgtatg ggatggtgat agagagtget 240
caggaatgaa acttcttggt atacatgaac aagcagcagt aggattttta acactaatgg 300
aagetttaag atactgtaag gttggttett aettgaaate tecaaaatte eetatttgga 360
ttgttggcag tgagacteac ctcaccgtat tttttgccaa ggatatggct ttagttgccc 420
ctgaaqctcc ttcaqaacaa gccaqaagag tttttcaaac ctacgaccca qaagataatg 480
gattcatacc cgattcactr ctggaagatg tgatgaaagc attggacctt gtttcagatc 540
ctgaatatat aaatctcatg aagaataaat tagatccaga aggattagga atcatattat 600
tgggcccatt tcttcaagaa ttttttcctg atcagggctc cagtggtcca gaatctttta 660
ctgtctacca ctacaatgga ttgaagcagt caaattataa tgaaaaggtc atgtacgtag 720
aagggactgc agttgtgatg ggttttgaag atcccatgct acagacagag acactcgag 779
<210> 1843
<211> 407
<212> DNA
<213> Homo sapiens
<400> 1843
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tgtcagggcc aggcctgggt ctagaattct tgctgctgct ttgcagagtc aacagcccat 240
cageceatgt tttagagggg acaetttggt ceteggttee caeceteage aageaggeet 300
ccagcccgag gaaggcctct gccgtagtga cgttgccgtg tggggctqcg tggctqttcc 360
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<210> 1844
<211> 369
<212> DNA
<213> Homo sapiens
<400> 1844
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gggggcagcg ttttccccct accggaaatc tgatgggctt atgacatcat ggctggctgc 120
tgagcgatga agtggatgcc acaaagaaat ccgacatatc agatagattc tgaaatcggt 180
ttccctccag ctgtagtaac aggcgtgaag tcaggagaat ttgagctttg tttaaaaaat 240
aaataaataa ataaataaac cataacaaag tottgoootg tattaaatgo aattttotta 300
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ctactcgag
<210> 1845
<211> 213
<212> DNA
<213> Homo sapiens
<400> 1845
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cacaatetgg tgtatttgga cetgteatet aataaaatte gtagettace egeagaacte 180
ggaaacatgg tateacteag ggegeteete gag
                                                               213
<210> 1846
<211> 341
<212> DNA
<213> Homo sapiens
<400> 1846
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tttctacagg gtatttgcga ggtcttcctc ttttcctttt aataattatt ggctgatctt 120
cetectgaga tittatggtg teatcategt tetgetetgg citticaeca gtagtiteae 180
tgctgctata ttcatctttt tcttccatga cccttgaggt agtgctattt gtctcagaac 240
tggttttagg taattettee aaatetetgg agttetette etttgtgtea tgtggeteeg 300
gattgaattc tagacctgcc tccagtaaca aggacctcga g
<210> 1847
<211> 110
<212> DNA
<213> Homo sapiens
<400> 1847
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ttatttgata tagcataagt atgtttttaa gaattcatgt tatcctcgag
<210> 1848
<211> 351
<212> DNA
<213> Homo sapiens
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ggagtgcagt ggcatgatca tggcttactg cagcettgat eteccagger caagegatee 180
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<210> 1849
<211> 414
<212> DNA
<213> Homo sapiens
<400> 1849
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getggeeace ttgagttetg tgeetggtge geeggageee tgeeeteagg attgeageee 180
tgcctcacac ccgctgcacc ctcccttgtg catttcaaca ggtgccactg tcccctactt 240
tgeagaggge tcegggggge eagtgeecae taceageace ttgattette etceagagta 300
eagttettgg ggetaeeeet atggtgagte gaeageeagg gettggeagg gaggggaege 360
caagageeee aegeagaeee tgetttette eegeagagge eecaeegtet egag
<210> 1850
<211> 359
<212> DNA
<213> Homo sapiens
<400> 1850
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eccagggtgg tggccccctc tagtettttg ctcggcagec gettecateg ggtcacegga 180
aacteecaet egaceateaa eecaaacaga gaaegtgaaa getagagtea etteaacagg 240
ttoctaaaga taaaggotaa actotagagt ggtggtagaa gatgagttgg ttoagcatgc 300
tatggggtaa gtaagettgt caeggaggge taeaggegte teetgggaag gaeetegag 359
<210> 1851
<211> 292
<212> DNA
<213> Homo sapiens
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cttatggctt tcttctaatg ttgaaggctg ttctaattgc attttcttta agtcctgtag 120
taattettea gaaagatett cateaceatg aattttgaaa gtaagateae tggcactaat 180
agagegaegt aattttgtae acttggaaaa agatgtgtga aaacatttag caaattttgg 240
atcttgaaca tcaggcataa tttctgttgg agatgtaaat ggggctctcg ag
<210> 1852
<211> 229
<212> DNA
<213> Homo sapiens
<400> 1852
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cactecagec tgggcaacag agcaagacec tgccaagaga aaaaaaagac tgtgtctttt 180
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<210> 1853
<211> 288
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<212> DNA
<213> Homo sapiens
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aaggcaaatt tacagetgge ttttgtaate etagetattt tttgtttgtt tgetaagtet 120
ttgatagtcc ccagtgtggt ttgtctgcca gtgatctcag caccaccaga gagcttgtta 180
gaaatgegge ateccaacee caccacagee eteccaagte agatactgee aceteacgag 240
gccccccagg gatccacaag ttcattaaag tttcaggaat ccctcgag
<210> 1854
<211> 182
<212> DNA
<213> Homo sapiens
<400> 1854
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ttccttattt gatttttatt ttgagaccga gtcttgctgt tgcccatgct ggagtgctcg 180
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<210> 1855
<211> 198
<212> DNA
<213> Homo sapiens
<400> 1855
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cacatgotgt teatcactet cetectettt acetggatge etegtgeetg tgeeteeega 120
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cotecactga gacaatgtea cotecaggaa gtgcccctca caatcctctc ctcccacaat 180
accetytece gaetegag
<210: 1856
<211> 239
<212> DNA
<213> Homo sapiens
<400> 1856
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<210> 1857
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1857
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cacttaattc ggttccagcc gtgtcaggga gactcgag
<210> 1858
<211> 248
<212> DNA
<213> Homo sapiens
<400> 1858
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tectateagt cacaagttaa aggteetaaa ttgacetaat gaetetttet ttttacteat 180
attitictgte tettitatti tgttetagti teggettitt aaaattitat etteeaacte 240
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<210> 1859
<211> 242
<212> DNA
<213> Homo sapiens
<400> 1859
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agtitigation organization of the state of th
tgctggccgt cactgtcatc cgtgaggcgg tggaggagat ccgatgctac gtgcgggaca 180
aggaagtcaa ctcccaggtc tacagccggc tcacagcacg aggcacagtg aaggatctcg 240
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<210> 1860
<211> 210
<212> DNA
<213> Homo sapiens
<400> 1860
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<210> 1861
<211> 253
<212> DNA
<213> Homo sapiens
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ggacatcaca atgctgttag acacccagtg catctttgaa ggagaaatcg ccaaggcctc 180
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<210> 1862
<211> 485
<212> DNA
<213> Homo sapiens
<400> 1862
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taccatgttt atccccaaat acttaacagc tagggttttc ccagactgaa taataataat 180
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gccacctggt gctagagccc ttcaccaaaa tgagcatcag ccttgctttc agaaagcagg 360
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atgctggggt acagaaagat caatgcaaaa gcaaaacatc ctgtgcctgt cctaaccccc 480
tcgag
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<210> 1863
<211> 343
<212> DNA
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<213> Homo sapiens
<400> 1863
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cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttcactgt 180
caataatgtt gcaatacata tetttttgag agatagggtt ttaaatttte tttattttga 240
aataagttet aggttagage eecaggatgg gattagttgg tggaaaatta agaateetaa 300
tgcactgaag actcctattg aaaccaagag caagatactc gag
<210> 1864
<211> 258
<212> DNA
<213> Homo sapiens
<400> 1864
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attacttata attcaaaaat taacctatat ttacagatge ttacacagtt tetttgtgaa 180
tecacetatg gttttatttt aattaatttt ttattgeaaa geaatgaaat gttgetttgt 240
ggagccagaa agctcgag
<210> 1865
<211> 290
<212> DNA
<213> Homo sapiens
<400> 1865
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tottteccte ttcattacta cettataaaa atacatecat tetteaaata tttteccaat 180
steecagtaa gaattageet eteteaatge tggtgeagtg geteatteet gtaateecag 240
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<210> 1866
<211> 305
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (16)
<400> 1866
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gtaaaggaaa ttctgtgtgt aaacatactg gctgtagtta aaaagggtat tgtccagttt 180
ttctgtaaat tgagcattaa aataaaagca caatgggttt ctcttacagc actatcctgc 240
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tcgag
<210> 1867
<211> 202
<212> DNA
<213> Homo sapiens
<400> 1867
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tgctttggct tgtgatgccc ctgcgagtag gggagggtat ggggtgagtc cttccttgga 180
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<210> 1868
<211> 250
<212> DNA
<213> Homo sapiens
<400> 1868
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acccagatag ccaaccacaa cccaccatcc ccctgaaatc ttgttgctct catccatgcc 180
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<211> 133
<212> DNA
<213> Homo sapiens
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<210> 1870
<211> 244
<212> DNA
<213> Homo sapiens
<400> 1870
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tatgagacat aaatttetgt tgtgtataag ceatacagte tatggtattt tgttacagea 180
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cgag
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<211> 262
<212> DNA
<213> Homo sapiens
<400> 1871
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gaaagtgatt tattttett tetttttet titetttet titettttt titettttt cttttegtga 180
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<210> 1872
<211> 418
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (48)
<220>
<221> unsure
<222> (65)
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cgagaagttg cttctttqta ctttttctac ttttcctact tttttgtaga aaaaaaagat 240
aatgootetg ottotattte tetgggggtg ggggtggggg cegggageeg tegeagaeec 300
gtttcatgca gcgtctccct cggcaccgcg ttcggaggac gcaccctcac tcccctgctg 360
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<210> 1873
<211> 174
<212> DNA
<213> Homo sapiens
<400> 1873
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<210> 1874
<211> 229
<212> DNA
<213> Homo sapiens
<400> 1874
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aatgctccct gaaaatactc aaatattttt agttgtagag tacaaatcag attgagctgc 180
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<210> 1875
<211> 191
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (90)
<400> 1875
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tgtgtgtgtg tgtgtgtgt catgtgtgtn tgtgtgtttt aataaattgg aagcaagaac 120
atttgatgtt catgaagtta cacttattta ttacggaaaa caaaaagaca gctttacatc 180
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ataacctcga g
<210> 1876
<211> 277
<212> DNA
<213> Homo sapiens
<400> 1876
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tgctccagct gagcgcttag tttatgccag ctggcactgt tggtgttaac tgcgtatttg 180
ttgtatgact gtcacttcga cagcctgtac cetecttgag ggeagagact ttgtetcagt 240
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<210> 1877
<211> 203
<212> DNA
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<213> Homo sapiens
<400> 1877
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tettaattge aactttteta etgagtgttt geactataet ttetggaate ttatttaaca 180
aaaataataa agggaagete gag
<210> 1878
<211> 254
<212> DNA
<213> Homo sapiens
<400> 1878
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cogcoatoco cacogotoag egectotgat goottotogg gegetttgeg etecetgage 240
ctcaaggcct cgag
<210> 1879
<211> 229
<212> DNA
<213> Homo sapiens
<400> 1879
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actittacgi gigitigaaa aaattittit taaategitg tittiticee eettitgeet 180
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<210> 1880
<211> 247
<212> DNA
<213> Homo sapiens
<400> 1880
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gtggatatat cactcaaaaa acccagaagt tgatgacagc agtgctcaga agggctggtg 180
gtttctgagc tggtttaaca atgggatcca caattatcaa caaggggaag aagacataga 240
gctcgag
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<210> 1881
<211> 248
<212> DNA
<213> Homo sapiens
<400> 1881
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tectateagt cacaagttaa aggteetaaa ttgacetaat gaetetttet ttttaeteat 180
attitictgic tottitatti tgttotagti toggottitt aaaattitat ottocaacto 240
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<210> 1882
<211> 179
<212> DNA
<213> Homo sapiens
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<210> 1883
<211> 206
<212> DNA
<213> Homo sapiens
<400> 1883
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ctaatttaac ctttatggaa gctttaaagt tttgtcaaaa catgagtgct ttgcccatca 180
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<210> 1884
<211> 193
<212> DNA
<213> Homo sapiens
<400> 1884
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ctgtatatac attcccagga gcacacacat ggacaagtta ctacagcccc cgctcccaag 180
tccaccactc gag
                                                                  193
<210> 1885
<211> 238
<212> DNA
<213> Homo sapiens
<400> 1885
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gattttatta ttttattatt ttattttatt ttttgagaca gagtgtcaca ctgtcgccca 180
ggctggagtg cagtggcacg atctcggctc gctgcgggct ctgcctcccg ggctcgag
<210> 1886
<211> 715
<212> DNA
<213> Homo sapiens
<400> 1886
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tgatgacttt gtggctgcca cttctccggg acatatcata attggaggtt tgtttgctat 180
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caacaattca acactettat etggagtcaa actggggtat gaaatetatg acacttgtac 360
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agaaactgtg gagtttaagt gtgactattc cagctacatg ccaagagtta aggctgtcat 480
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atttttacgg actgtgccca gtgacttcca tcaaattaaa gcaatggctc acctgattca 660
gaaatetggt tggaactgga ttggcatcat aaccacagat gatgacgtcc tcgag
<210> 1887
<211> 401
<212> DNA
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<213> Homo sapiens
<400> 1887
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gtgctctcat cacteegtte ategeeeagg tgatgetgga atectetgtg tacetgacte 300
tggcagttta cagtggctgc tgcctcctgg ctgccctggc ctcctgcttt ttgcccattg 360
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<210> 1888
<211> 248
<212> DNA
<213> Homo sapiens
<400> 1888
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acagagggag attecatete aaaaaaagta aaataaata aattteetgt tgtaatttet 180
aatgtgataa atataatagg tataatgcat gttaactaaa gcattttaga gtctcagtag 240
gtctcgag
<210> 1889
<211> 222
<212> DNA
<213> Homo sapiens
<400> 1889
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ggaagagaga ggaaaatccc ctgaatccct gcaggattaa tttattcaaa aaggaaataa 120
aaaatactca atatgcaaaa gtcttgtgaa gaaaatgagg gaaaaccaca gaacatgcca 180
aaggeegagg aagategeee tttggaggae gaegeaeteg ag
                                                                222
<210> 1890
<211> 361
<212> DNA
<213> Homo sapiens
<400> 1890
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ttgttttttg agacagagtc tcgctgtgtc gcccatgctg gagcgcagtg gcgcggtgtc 180
ggctcgctgc aacctctgcc tcccgggttc aagcgattct cctgcctcag cctcccgagt 240
ggctgggatt gcgggcgcaccaccacccccgc ccggataatg ttttgtattt tggtagagac 300
ggggtttcac catgccgtcc aggctggtct cgaactccca acctcaggtg atccactcga 360
<210> 1891
<211> 230
<212> DNA
<213> Homo sapiens
<400> 1891
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tagggettaa gtecaccatt ttatttatta ttttetette cetetecett etgteeteae 180
cctgttatcc tcagagggag aaaacacaga agagaggcac aaagctcgag
<210> 1892
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<211> 224
<212> DNA
<213> Homo sapiens
<400> 1892
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agtatetttt gatetgaatg aateaatatg aagatettte tetettett tettettt 120
ttttttttt tttttttt agacggggtt ttgctcttgt cacccaggtt ggaatgcagt 180
ggtgctatca cagctcactg cagtctcaaa ttcctggact cgag
<210> 1893
<211> 709
<212> DNA
<213> Homo sapiens
<400> 1893
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ggctctttat cctaaagtat atatttaagt acctaaaagg atcagttaat tatttttct 120
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atattaaage acttttgtaa agtatataac atttccttgg tttgctactt atcacttttt 240
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aggcactata tatactattt gttggatggc tgttggaatg ggtgggtaag tggatgagta 480
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tatatatttt gtgtgttttg aatactttgg ttaagtggct tccaaagtat gtgctataaa 600
aacettetge acaaaaaggt etecatagee aaatagattt ggaaatgtga tatattattt 660
ttatgtcaag aaattcttaa tatagattaa cacgttaaat attctcgag
<210> 1894
<211> 578
<212> DNA
<213> Homo sapiens
<400> 1894
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gaatgggggg gtctctggat tctttgtatt atatatagga gttctttgta ttattgttgg 180
aactttatta caagtttgca atgatttcaa catagaaaag gataccatta agagaatgga 240
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tgggaggaaa ggatgcagct tgaggatgga ggtaattttg aaggtctcta ggaccattta 480
aagtatattt tetttetata agaetggeaa acaettttgt eagtggagtt ttagggtgaa 540
aaagtaagcc tgagaaagaa agctagggag tgctcgag
<210> 1895
<211> 258
<212> DNA
<213> Homo sapiens
<400> 1895
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ttttctttca gttcagtgat taccattcag tgtgttgtca tggacatcac tgtgcctatt 180
gatgcactaa ttgtcccaaa tctgacgatg ggagcccttt caagcttgct tttctgttct 240
tttgcgcact cactcgag
<210> 1896
<211> 423
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<212> DNA
<213> Homo sapiens
<400> 1896
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cattgcactc cagcctgggg gacaagagtg agacttagtc tcaaaaaaaa aaaaaaaaag 180
aaaaaaaaat cagggatata gttcatatcc cacttctttg tttacaccga tgtccctgaa 240
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gtggtacact gagettetga geeteattgt agagtagaaa ggtaetgggg eetgtgtggt 360
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gag
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<210> 1897
<211> 182
<212> DNA
<213> Homo sapiens
<400> 1897
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treettattt gatttttatt ttgagaeega gtettgetgt tgeecatget ggagtgeteg 180
<210> 1898
<211> 281
<212> DNA
<213> Homo sapiens
<400> 1898
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<210> 1899
<211> 329
<212> DNA
<213> Homo sapiens
<400> 1899
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<210> 1900
<211> 163
<212> DNA
<213> Homo sapiens
<400> 1900
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agactattgt cacagccatg tcaacttccc caggccactc gag
<210> 1901
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<211> 212
<212> DNA
<213> Homo sapiens
<400> 1901
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aaatttattt acttgtttta aatatgatga taagagcege ccacetgcat gggettgtgt 120
ccctgctttt aatgtggatt tatgccactg atctgcattt tggacatcat aagaaatact 180
getgtgette cectacacce acceaacteg ag
<210> 1902
<211> 195
<212> DNA
<213> Homo sapiens
<400> 1902
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tteteetttt teegeaette teeaeceete ecacatttae agecagaate aacatteeet 180
gggccccatc tcgag
<210> 1903
<211> 275
<212> DNA
<213> Homo sapiens
<400> 1903
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aaaataatga cctcttacaa attccaccag agctcggtaa ttgtgtaaac ttaagaacat 240
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<210> 1904
<211> 153
<212> DNA
<213> Homo sapiens
<400> 1904
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gcagtgatga ttattctaca gaagatactc gag
<210> 1905
<211> 177
<212> DNA
<213> Homo sapiens
<400> 1905
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aatctacttg tgttgctgac catatcaaca tggttttcaa aatacagcgc cctcgag
<210> 1906
<211> 156
<212> DNA
<213> Homo sapiens
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<210> 1907
<211> 202
<212> DNA
<213> Homo sapiens
<400> 1907
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<210> 1908
<211> 156
<212> DNA
<213> Homo sapiens
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<210> 1909
<211> 180
<212> DNA
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<210> 1910
<211> 297
<212> DNA
<213> Homo sapiens
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geagtteace atttgeatta tatagaacga tatgaagacc atacaatatt ccatgatatt 240
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<210> 1911
<211> 319
<212> DNA
<213> Homo sapiens
<400> 1911
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<213> Mus musculus
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teccegagee taccatatgg tgtgcctgga eccagacatg gagaaggeee eggagggeaa 300
gtggagctgt ccccactgtg agaaggaggg gatccagtgg gaagctaagg aggacaattc 360
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<210> 1941.
<211> 267
<212> DNA
<213> Homo sapiens
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<210> 1942
<211> 306
<212> DNA
<213> Homo sapiens
<400> 1942
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gtgattetee aggaagttae eagggeetga getaatgaea tggeeaacaq caaqeetqea 180
agatgaaagc agtttattaa tactcatacc attgaggatt ccaggaagga aagcagactc 240
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<210> 1943
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ataactaaaa gaatggttga ctgatgagca ggtgactgac aggatcaaca aagtaacaga 240
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<210> 1945
<211> 273
<212> DNA
<213> Homo sapiens
<400> 1945
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tattaagttt eteaggggaa ttgtagatta ttteagagtg eagttttagg tegtggatea 180
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<210> 1946
<211> 370
<212> DNA
<213> Homo sapiens
<400> 1946
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<210> 1948
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<222> (263)
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<211> 630
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<210> 1951
<211> 457
<212> DNA
<213> Homo sapiens
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<210> 1952
<211> 742
<212> DNA
<213> Homo sapiens
<400> 1952
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cggctcagtt ttagggcatg ggcactgaaa tagtagggga tgttgcacag tgcataatca 480
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<213> Homo sapiens
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<210> 1954
<211> 527
<212> DNA
<213> Homo sapiens
<400> 1954
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<211> 530
<212> DNA
<213> Homo sapiens
<400> 1955
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<210> 1956
<211> 518
<212> DNA
<213> Homo sapiens
<400> 1956
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ggcattatgc aagaacagat tatgcagaga atgctaacaa attagaagaa agtgccagag 180
aacaccacat accttgtccg gaacattaca atggcttctg catgcatggg aagtgtgage 240
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gtgaaaaaaa ggactacagt gttctatacg ttgttcccqq tcctqtacqa tttcaqtatq 360
tettaatege agetgtgatt ggaacaatte agattgetgt catetgtgtg gtggteetet 420
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<210> 1957
<211> 189
<212> DNA
<213> Homo sapiens
<400> 1957
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<212> DNA
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<400> 1958
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<210> 1959
<211> 126
<212> DNA
<213> Homo sapiens
<400> 1959
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<210> 1960
<211> 134
<212> DNA
<213> Homo sapiens
<400> 1960
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<210> 1961
<211> 309
<212> DNA
<213> Homo sapiens
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taattagage etteecegat tacattttee tetgaatttt tteetateta eatttgatet 240
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<211> 361
<212> DNA
<213> Homo sapiens
<400> 1962
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aaataaagtt geeettteag titaaeettt taaeagtage agtgiitgie agttitetti 240
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<211> 442
<212> DNA
<213> Homo sapiens
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tragatotic tettaagec tectagegaa attitaactt cagetategt actittcage 360
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<210> 1964
<211> 122
<212> DNA
<213> Homo sapiens
<400> 1964
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<210> 1965
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1965
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caetteetea geeegeegte tgeeeactee tetageegga aeetggggge eeggageegg 180
ggtaggcaca gagttgtcct cggaggtcca ggacagcggc cagcccggcg gcgggagtca 240
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<210> 1966
<211> 122
<212> DNA
<213> Homo sapiens
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atcagateet tettttaaga tatttggeea teaaaattea etatgaatee ceacageteg 120
<210> 1967
<211> 110
<212> DNA
<213> Homo sapiens
<400> 1967
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gttttaaaac ggtgatgata ttaacaaaga aaatcccggt cattctcgag
<210> 1968
<211> 259
<212> DNA
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<213> Homo sapiens
<400> 1968
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ctgtatgtac ttccagtatc ctgaaacagt gtttggtgac ataatgccaa gggtaaacaa 180
gcctgattta ggcactgctt tatccagggg cttcacccat gaaattaata aaacttatct 240
gagtcacttg aaactcgag
<210> 1969
<211> 218
<212> DNA
<213> Homo sapiens
<400> 1969
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<210> 1970
<211> 237
<212> DNA
<213> Homo sapiens
<400> 1970
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<210> 1971
<211> 265
<21.2> DNA
<213> Homo sapiens
<400> 1971
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<210> 1972
<211> 326
<212> DNA
<213> Homo sapiens
<400> 1972
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cccaggaagg aaagcacttt tetgttetgg gaagcccaga etgtteaett tggggcaggg 180
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<212> DNA
<213> Homo sapiens
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<213> Homo sapiens
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<212> DNA
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<212> DNA
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tettettgg tattggggtt tattattaat attatgette tttgtaatat teagtattgt 240
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<212> DNA
<213> Homo sapiens
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<212> DNA
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<212> DNA
<213> Homo sapiens
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<212> DNA
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<211> 391
<212> DNA
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<210> 2010
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<212> DNA
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<211> 191
<212> DNA
<213> Homo sapiens
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<211> 205
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<213> Homo sapiens
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<212> DNA
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<211> 291
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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 aaaatggetg gactgeetee gateeagtte atggetaetg gtteagggge aggggaeeat 240
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<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<210> 2023
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<212> DNA
<213> Homo sapiens
<400> 2023
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ttattttatt ttattttatt ttattttatt ttatttattt atttattttg agacgtagtc 180
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<211> 266
<212> DNA
<213> Homo sapiens
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aattttatag ttaattcagc tgaatcatta agaagctcgc ctttttgtat ttttttatcc 180
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<211> 462
<212> DNA
<213> Homo sapiens
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gctggatatg tcagatgagt ttcttagaat cattctctct cccttctgta ttgtgataga 180
ctatcactct catgaaggga aagactgttt ttgatgtcta aagtttaggc cagtgtctca 240
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<211> 312
<212> DNA
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gctatggtag gaattetgte tattgtgget eaggtgagta teattttate tataettaaa 180
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<211> 191
<212> DNA
<213> Homo sapiens
<400> 2028
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taaacatact cttatcatgc attctagcaa tcatgctcct aggtatttat gcaaatgaat 180
tgtcactcga g
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<210> 2029
<211> 669
<212> DNA
<213> Homo sapiens
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ctggctgtgt actacagggg aggagettta ctaactagec ccagtggacc aggetateat 180
atcatgttgc ctttcattac tacgttcaga tctgtgcaga caacactaca aactgatgaa 240
gttaaaaatg tgccttgtgg aacaagtggt ggggtcatga tctatattga ccgaatagaa 300
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tatgacaaga cottaatott caataaaato caccatgago tgaaccagtt ctgcagtgcc 420
cacacacttc aggaagttta cattgaattg tttgatcaaa tagatgaaaa cctgaagcaa 480
getetgeaga aagaettaaa ceteatggee ceaggtetea etatacagge tgtgegtgtt 540
acaaaaccca aaatcccaga agccataaga agaaattttg agttaatgga ggctgagaag 600
acaaaactcc ttatagctgc acagaaacaa aaggttgtgg aaaaagaagc tgagacagag 660
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<210> 2030
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<211> 238
<212> DNA
<213> Homo sapiens
<400> 2030
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aaataatact gtacagactg gggagaatta ttctacccac tccctcattt catgcttgtc 180
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<211> 151
<212> DNA
<213> Homo sapiens
<400> 2031
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<211> 242
<212> DNA
<213> Homo sapiens
<400> 2032
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caatattcat attcatgtct tttttctttt tcttttctt ttttctgaga ttgagttttg 180
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<210> 2033
<211> 240
<212> DNA
<213> Homo sapiens
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catetectat tttggaagga atcateceag actaaaagge teetaceact gateetgaag 120
aaaaacccct tcctccttaa aaaagataag tgaaaaccta cataatcttt aacacctctc 180
cttgcccctt taatggaatc cttttactat ttcatcatgt tattaagcag catactcgag 240
<210> 2034
<211> 241
<212> DNA
<213> Homo sapiens
<400> 2034
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tggagtgaag atgctgtttg aaaccttgac atgttccagt ggcacccgcc aaacactcga 240
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<211> 138
<212> DNA
<213> Homo sapiens
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<400> 2035
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ctccaaagcc ccctcgag
<210> 2036
<211> 206
<212> DNA
<213> Homo sapiens
<400> 2036
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tgagtttgag aaatttttgt tccgaactgt gtaaaccaga aaaagattag atgttaatac 120
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gatataattc acataccagt ctcgag
<210> 2037
<211> 150
<212> DNA
<213> Homo sapiens
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tcccaggctt tagcaaagga aattctcgag
<210> 2038
<211> 197
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (146)
<400> 2038
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gcctcccacc ctctccccat ctgctntggg tatttttgtt tttgtttagt tttaggttta 180
caacagagag actcgag
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<212> DNA
<213> Homo sapiens
<400> 2039
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<210> 2040
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<212> DNA
<213> Homo sapiens
<400> 2040
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caggcaagaa cacacggtgt cataggacag ccccgggcac ctccccaacg cgggctcagg 240
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<210> 2041
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<212> DNA
<213> Homo sapiens
<400> 2041
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cctgcccaat tcttggcaca ggcattatgt ttgaagaaac caggataagg tacactgctt 180
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<210> 2042
<211> 192
<212> DNA
<213> Homo sapiens
<400> 2042
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ttatccattt gtaattcaaa aaatagtgta tgttttgttc acgacagaac atcagatacc 180
aaacccctcg ag
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<210> 2043
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<212> DNA
<213> Homo sapiens
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gttttagtga ctttttttat acggttcttg taaattagat acgtgtagtg gtgtttcaga 180
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<210> 2044
<211> 105
<212> DNA
<213> Homo sapiens
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<210> 2045
<211> 259
<212> DNA
<213> Homo sapiens
<400> 2045
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ttctttttcc cctaaataag caaaaacgtg tcttcatttt tccctttcct gttttattta 120
cacagaagge atcttagtca gttgtctgac catcgctcct ctagtgggct gcgtggttct 180
ctgttggaca gatgtaggga gcttatccaa ccagtaccct ctggataggc aggcgcatga 240
ttacagggcc gttctcgag
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<210> 2046
<211> 250
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tgcgccagct tcacggcggg catcgtggag gcggtgctca cacacagcgg cttccctgcc 180
aaggtcacgg cgcactggca caagggcacc acgctcatga tcaagttcga ggaggcagtc 240
atcgctcgag
<210> 2047
<211> 152
<212> DNA
<213> Homo sapiens
<400> 2047
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cetteacact tteetgttee etgaagatge cactgetgge tgtateattg tacatgetgt 120
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<210> 2048
<211> 255
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (108)
<400> 2048
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ccaagagcat tgaaattttg attggatttg tattgaattt atagattaat ctggtaaacc 180
atgtcatctt tacaatgttg tcttccaata catgaatatg gtacagetct tcatttactt 240
aggcctttac tcgag
<210> 2049
<211> 121
<212> DNA
<213> Homo sapiens
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<210> 2050
<211> 258
<212> DNA
<213> Homo sapiens
<400> 2050
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ccgcactgcc aatatattga tcctttatag ttatttccta aaatgctgtt ttcgaaacat 120
tcctttttca ccctgttgtg tggcttagac ccatctcgta atctgttaat tggaaagagg 180
ctacagacac cagcagtgtg cgttctgcag gtacacgctg ccaaagtaat tcctgctcat 240
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<210> 2051
<211> 171
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<212> DNA
<213> Homo sapiens
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<210> 2052
<211> 130
<212> DNA
<213> Homo sapiens
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<211> 292
<212> DNA
<213> Homo sapiens
<400> 2053
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aagggttatg ccttctggag gagtggggag aaaagggaat gattagggaa aaggaacaaa 120
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<212> DNA
<213> Homo sapiens
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acacteteag cacaagggta gacaagaaaa gaaaaatete etgetggeea ggaagaceae 180
aaggaggett tetgaettgg eetgtgettt tgatttttaa aacatttttt aaaagaggee 240
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 <211> 227
 <212> DNA
 <213> Homo sapiens
 <400> 2055
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 <210> 2056
 <211> 639
 <212> DNA
 <213> Homo sapiens
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agaaggaagg aatactaact cactggaatt tetttttgag gttataaaaa tattttcaaa 240
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gaaaaagatg gtgtacaaat gcaaaggaga gaggtgggct agcgctggct gggactggga 600
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<210> 2057
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<212> DNA
<213> Homo sapiens
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ttttgttttc cttttaccat tttatcttgc tttggaggac cttaaatgct actgaaactt 180
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<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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acatacacac acacatattt ttttcctcca tgagatgtcc atctcttcct tctctgcaag 180
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<210> 2060
<211> 200
<212> DNA
<213> Homo sapiens
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tccttgaaaa caaatagtac cagccacttt gaggaatgtg cattcactat agtgggttat 120
tatggggtct ctgcctcctg gctgtgttat gcggagccca ggagtggagg agagccgtgg 180
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<210> 2061
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<211> 427
<212> DNA
<213> Homo sapiens
<400> 2061
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gtgtgeggtg cagetettgg agtetggggg aggettggta cageetgggg gateeetgae 180
actetettgt gaaggeteag getteaactt cagegataaa gecatgagtt gggteeggea 240
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ctatttacaa atgaagagcc tgagagtcga ggacacggcc ctatattact gttcgaagga 420
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<211> 156
<212> DNA
<213> Homo sapiens
<400> 2062
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acteaceaac tegecageaa ttecatteea agecagtaga ttetgacage gatgatgate 120
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<210> 2063
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<212> DNA
<213> Homo sapiens
<400> 2063
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ttcaagcaaa attgggaaag aatatgaaac aaaagatatg tggcctcgag 110
<210> 2064
<211> 416
<212> DNA
<213> Homo sapiens
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tggagtttgg gctgagctgg ctttttcttg tggctatttt aaaaggtgtc cagtgtgaag 120
ttcagctgtt ggagtctggg ggaggcttgg tacagcctgg agggtccctg agactctcct 180
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<210> 2065
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<212> DNA
<213> Homo sapiens
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ccacaactca getttatttt atgtaagete tttetgeaaa gggaaagtag etetttgtae 180
caaagcaagg gcctctgaat gagagctggg agaggccaga atgggcctgt aagaggttga 240
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ggtacaaagg atgtgcctgg cataccccat atcttttaca aagacataaa tgtcttctga 360
ataaaagtat gatgatgatg atcatggtga tgaagatgag ggtgatgatg ttgatgatga 420
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tgatggtgat ggtgatgatg gtagtatgat aatgctgatg gtggtgatgg tgataggagg 480
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<212> DNA
<213> Homo sapiens
<400> 2066
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gaggttactc agacttaggc atagaatttg cattgttgct aaagataatt aatgctttac 120
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getaattaet gatatattae cegtaggttt tettaatate teaaatgtaa aetgtgaata 300
attttttctc caaaggataa atctaccaag aaactctgat atatgcaaat acttatgcat 360
attaaacttt ctgatatgac atctagaget tttgtgtaca ttttctacaa atagaaacac 420
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<210> 2067
<211> 254
<212> DNA
<213> Homo sapiens
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etggtgcate tteageteet ttagetteat ttgttaaata egtteettta tgeettgcca 180
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ctccaaacct cgag
<210> 2068
<211> 169
<212> DNA
<213> Homo sapiens
<400> 2068
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ctccaaacac aaagacaaag aacagacagt agtagatgtc actgagcagt taggcgattg 120
caaattagat agtcaggaga aagatgctac atgtgaactt ccgctcgag
<210> 2069
<211> 242
<212> DNA
<213> Homo sapiens
<400> 2069
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ggaaacaaag gcttagctgt acattcatgg ctcagagcat caaaacctgt gttttcatta 180
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<210> 2070
<211> 386
<212> DNA
<213> Homo sapiens
<400> 2070
gaatteggee aaagaggeet actegaettt etetgeacag caggteeage ateetttgaa 60
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aggtgaaaca acccagccag cetecacete aggaaatatt tgtteecaca accaaggage 180
catgccactc aaaggttcca caacctggaa acacaaagat tccagagcca ggctgtacca 240
aggtccctga gccaggctgt accaaggtcc ctgagccagg ttgtaccaag gtccctgagc 300
caggatgtac caaggtccct gagccaggtt gtaccaaggt ccctgagcca ggctacacca 360
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<211> 144
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (63)
<400> 2071
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caaaaattct ggggactcct cgag
<210> 2072
<211> 624
<212> DNA
<213> Homo sapiens
<400> 2072
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gcaataaaat ttetteaate aaccatgett tagteetgge agttetetat cagtgagttt 180
caatcaaaaa gtttgtttat aattttttt tttttaaat tttgaaattt ggaaacaaca 240
tcataaatga tggttagttt tctgcagctc cctattttgg cagatagtct gttgttactc 300
ataattaatt tgaactaaaa agtagtgttg tacgatatca tgggctgtga atgtgtttgt 360
gacttgatct gagaacccac acaccactta ggatgcttct gtaggaaaat tagagtatgg 420
aactcacttg cccacgcttt ccctgtctca gtccatgttg gtaggctgca aagtctgggg 480
ctagaaggac actgaacaag acttcagcag tacatgttag tcttccagag ggaaggaata 540
taatagttga gagaataatt cettteetet gtgaetttag geaaattett ggetatgetg 600
ttatttattt gggccaccct cgag
<210> 2073
<211> 260
<212> DNA
<213> Homo sapiens
<400> 2073
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taaaattttt tettttttt ettttttga gacagtettg etetateace caggetggag 180
tgcagtggca cgatctcggc ttactgcaat ctccacctcc cgagttcaag caattctcct 240
gcctcaacca tccactcgag
<210> 2074
<211> 142
<212> DNA
<213> Homo sapiens
<400> 2074
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cetteaceet gaeteetgte aetgteteea teeccaaata aagetgaaat attttttaa 120
gttagctgcc gagaccctcg ag
<210> 2075
<211> 159
<212> DNA
<213> Homo sapiens
<400> 2075
gaatteggee tteatggeet agtattattt acteattgga etattaggaa caceaagttt 60
ataatacatt gtctaacacg ctgtatgtat cacttaataa gtgttttctt cctcttcccc 120
atccagagca ctttctaccc tcttccccca cacctcgag
<210> 2076
<211> 360
<212> DNA
<213> Homo sapiens
<400> 2076
gaatteggee aaagaggeet agttgggagg agagtaaata eeetgattee tgeteatagg 60
aagetggace aacceaaagg geetgatate ecatgaagee cattttteet tgttagacet 120
gtcagaatta cagcaggcct tggtgcatac actaagacaa gggtagaacc agatactgga 180
agctgagggg aggccctaag aaatagaagg gcagaattgg aagagatggg aacccaccca 240
tototgagca taagecccat ctagtcattg totttggeca ttttaagtct gttagettet 300
tttaaaggtt agtgagtata gggtcgacgc aggtctagaa ttcaatcggt tctccctata 360
<210> 2077
<211> 286
<212> DNA
<213> Homo sapiens
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aggegtgage cactgetete ggeetgtgeg ttttttettt gegggaatge teetcaettg 180
ttgcatttct tgcggtgttt tgcatcccga gccctttgcc gcttgcagca tccaattatc 240
                                                                  286
tcctccagtc agcagccact tgccttccag tgtttctgga gtcgag
<210> 2078
<211> 326
<212> DNA
<213> Homo sapiens
<400> 2078
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ttctctactt ttgtatatgt ttgaaggett ttacaataaa agtttttaaa agtaaatgea 120
gatgeteaca cacacataaa atteaaacta aagttacaaa gaaaaaatta aaaccacaeg 180
taatactacc agactgaatt cttctttcac agtatttcca gcaaatctgg aatcagaaga 240
gttgtattca aattetggtt ttgtcaataa tgagetetgt gaaettgtae ataaettete 300
tggattgatt ctagacctgc ctcgag
<210> 2079
<211> 285
<212> DNA
<213> Homo sapiens
<400> 2079
gaatteggee tteatggeet aaaaaaaata aaaaacatat atatatatag ataggtatat 60
agatatatet atagatatat atgagtgtta tataaatata tetatageta tgtatatgag 120
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tgatttttt taaagttgca gcaccatttg ttgaaaacct atcctttctc cactgaattg 180
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<210> 2080
<211> 292
<212> DNA
<213> Homo sapiens
<400> 2080
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gaaaactgga aaggtgaagc atgtgacatt cctcactgta cagacaactg tggttttcct 180
catcgaggca tctgcaattc aagtgatgtc agaggatgct cctgcttctc agactggcag 240
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<210> 2081
<211> 574
<212> DNA
<213> Homo sapiens
<400> 2081
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gagggtgaag ctcctcgaca ccatggtgga cacttttctt cagaagctgg tcgccgccgg 180
cagetaceag agatteactg aetgetataa gtgettetae eagttgeage etgegatgae 240
acagcaaatc tatgacaagt ttatagctca gttgcagaca tctatccggg aggaaatctc 300
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agaaggcaaa gtccgcaaag agccagcctg gcgccccagc gggatcccag agaaggatct 420
gcacagtgtt atggcaccct acttcctgca gcaacgggac accctgcggc gccatgtgca 480
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<210> 2082
<211> 464
<212> DNA
<213> Homo sapiens
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aaagtaccca tatatatgat aaacacttaa cccagatata aattttctcc tcttttaaaa 120
aactcagtta tgtttttgaa taataataaa aaatccacca aatgcggggg aaaaacacca 180
gtttaggaaa agccacgctg tgcaactttc acagataacc acatacgttg gagttgaccc 240
ttcacatttc ttttttcca aaattagagc aaagagtcag cttaaacaaa aaaaaaaccc 300
tgaaatttac aacatggtga ttagtttaaa aaagaaacga gaagggctct gcgagggaga 360
cgccacaaac caagcttgga aagcaaaatc atttttgttt ctctttggca acaacaataa 420
cgaggaatct ttttagtaaa atgaagctaa agcttctcct cgag
<210> 2083
<211> 168
<212> DNA
<213> Homo sapiens
<400> 2083
gaattcgcgg ccgcgtcgac caaaagtttg gagtgaccag caagaggcca atagatgtgg 60
gggtggggaa gaatattctc attcctgtgg tatgttgcag ttccggcatg ttcagaacaa 120
cctgatgaga aattctacaa cagaaaaaat cgaaccaaga gactcgag
                                                                  168
<210> 2084
<211> 547
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<212> DNA
<213> Homo sapiens
<400> 2084
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catectttag ttttttttg tcattcagaa eggtttactt ttgcatatag tattatctat 180
tacagtagtt aagacaatgc agtctcatct aaaccctaac tcatttaatc ctcaagacaa 240
ccatgtggga tagatgtgag aattttatag atgaagtaac aggctcagag aaatagtcgt 300
ctagtcacac aactagtaag tgactgggat tcaaatcaga taggcaccaa aagctcaagc 360
tcttttttga accatttcaa ttcctttttt tgttgttgtt ggagacggag tctcactgtg 420
ttacccagge tggagtgcag tggcgcgate tcagetcact gcaagetetg cettetgggt 480
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cctcgag
<210> 2085
<211> 488
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (67)
<400> 2085
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ctcgaatagc ttgagagccc cacgggctct gccacacccg tgacttcatc cacactgacg 180
tcacccgcgg gggctccccc tgcacatttg cacacgatcc ggagagccga aggccgcgtg 240
cttcctgtca catgggctgt aatcatttgt agtttccaaa gacacgtctg catttgaatt 300
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ctagaatctg aaattgaatt agcaagaacc gactgtttgc attttccata tatcctttta 420
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cactegag
<210> 2086
<211> 513
<212> DNA
<213> Homo sapiens
<400> 2086
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ageceacata ggaagtegae acceacaaaa ataaatattg caaacaaaag tteteacata 240
cacttcacac tcattcatac ttttcctctg agaaccgaga aagcctggct ccaaagagtc 300
tcagattctc atgaaaagta gagatcttag acacagcttg ttcaacgaca ggggtcatac 360
gcctgggtca agacaatcaa tttgccttgt caagcaatac caaaataatc atctggcttg 420
ttacaaaagt atetecagge teeaagggaa geagaagggg eeeggeagee tgeaeageet 480
aaaccgtcga ttgaattcta gacctgcctc gag
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<210> 2087
<211> 315
<212> DNA
<213> Homo sapiens
<400> 2087
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gcagaatata ttatcatggt aaatacagtt acaaggctgc ttctatttta tttattttt 120
gagacggagt ctcactctgt tgcccaggct ggagtgcagt ggtgcgatct tggctcactg 180
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caaceteege etectgggtt caageaatte teetgeetea geeteecaaa gtgctgggat 240
tacaggegtg agccactgcg ctcagcagta ttgtcatttt ctaatatttc tatttactgt 300
tggaggagcc tcgag
<210> 2088
<211> 501
<212> DNA
<213> Homo sapiens
<400> 2088
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ttgagtgtaa tatttatggt ttatagcaaa atgaatgtgc ttattgttga atgcatgtat 180
ttagaageet ttacteagee eetgtgttet gtgetaggag ettgagetet acaggtaagg 240
cagagctacc ggtgaatgaa aggaaatcat gtcagtgaaa aatcatggtg gaaagcccct 300
ggcatcacat gtgcatgctg taggcaggac ctgagctgcc tccgctgcag gttcagatgc 360
accgctgcag ctgtccttca gttagttcac agggctgcaa gaggaggaca catccctcca 420
gaaaacagcc tgagccggga actggctgtg ctaaagagca ctgctatcaa gttgaggaga 480
gagggettee gtgeactega g
<210> 2089
<211> 465
<212> DNA
<213> Homo sapiens
<400> 2089
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tctcaagaat attaatttag tttttcccat ttaattttta gaaaaaataa aggaagaaaa 180
tagcetttta atgtetgtgt gettggeact ttecatgtta ettgttteea tttgtagaat 240
aaccctgtga tacggctgtt aactattagt teceettttg gaagatgagg aaattgagge 300
tetteettea gtagaacetg aagaatgagt tetteataet tggetaatgg agataagtgt 360
gtgttggggg aggcattcca ggtcagaggc tatccagaag ggcaaactaa gaaggaaagc 420
tgggcctgcg aaaaacacac gcggaaccgc agcagcccac tcgag
<210> 2090
<211> 273
<212> DNA
<213> Homo sapiens
<400> 2090
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ctagcagget tgtttaaaaa gttcagatte ctagetttgt acccagggat tgeeteaggt 180
ggtatgggct gtggtcctgg agtcatcact tttataaata gtggttcaga gaccacagag 240
agagactget teategaatt ggaagtacte gag
<210> 2091
<211> 160
<212> DNA
<213> Homo sapiens
<400> 2091
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ccctaccaaa atgaagatgc tgctgctgct gctgtgtttg ggactgaccc tagtctgtgt 120
ccatgcagaa gaagctagtt ctacgggaag gaatctcgag
<210> 2092
<211> 293
<212> DNA
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<213> Homo sapiens
<400> 2092
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aaatggtcaa cetgtacagt qqcaaaatca tcactacgaa gqcagacatt tgggetettg 120
gatgtttgtt gtataaatta tgctacttca ctttgccatt tggggaaagt caggtggcaa 180
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taattaggta tatgttggaa ccagaccctg acaaaaggcc ggaatgtctc gag
<210> 2093
<211> 262
<212> DNA
<213> Homo sapiens
<400> 2093
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acttagctgt tttagaaact agtacagaca gagactctcc tgaggaaatt agagctttta 180
tgattagaaa catgcttgtc taaaaatgag ggtcttagaa atcacaacat tgacccttat 240
gatgttgccc cctaagctcg ag
                                                                   262
<210> 2094
<211> 197
<212> DNA
<213> Homo sapiens
<400> 2094
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tecatggatt ctattetgtt aggtattttg etttettee tttttatttt ttagagacaa 120
ggactcactg tgttgcccag gctggtattg aactcctggg ctcaagtggt cttctcactt 180
cagceteecg cetegag
<210> 2095
<211> 190
<212> DNA
<213> Homo sapiens
<400> 2095
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ttttacaatt ctgattctgt atcccctggg ggttatccca gttgcttctt taggatgggg 120
tttattacgt tgtacatata tcccgatgtg tctgtgtgaa tctttgtctt ttttggggga 180
ggggctcgag
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<211> 222
<212> DNA
<213> Homo sapiens
<400> 2096
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ttcatgaagg acagactgtt caagttgatg accactactg tggtgaccag cttaaacctc 120
ctacccaaga actatgccat ggtaactgtg tettcacaag atggcattat tcagaatggt 180
ctcagtgttc caggagttgt ggaggagggg aaaggtctcg ag
<210> 2097
<211> 187
<212> DNA
<213> Homo sapiens
<400> 2097
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getttacaga gttgggtget tttttetete tgcaattace tgtcatagea ttttgtgete 120
accacgaagg atggtetetg cettetettg teggtgtatg ceatetgaac etaggaacta 180
cctcgag
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<210> 2098
<211> 235
<212> DNA
<213> Homo sapiens
<400> 2098
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catgattcat ttcctgacct cttttctgct gcactctttg tccttctacc cattcattcc 120
ctetttgeta tecettgaac atgteaggea tgeteetgee ttggtgagtg gtggetttag 180
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<210> 2099
<211> 199
<212> DNA
<213> Homo sapiens
<400> 2099
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atttgacagg ggaagaagag ggtgtctggc atttattagg gacctaaata agttcagaat 120
attatgttta atctccttga ctacctattt agttacgtat ctctcccact ttgctgatga 180
                                                                   199
gaaaaatgag gctctcgag
<210> 2100
<211> 211
<212> DNA
<213> Homo sapiens
<400> 2100
gaattegegg eegegtegae acaagateee gaaggacage atgaegette tgeeetgett 60
ctacttcgtg gagetgeeca tagtggette ttecategta teettgtact teetggaget 120
gaccgacctc ttcaagccgg ccaaggtggg cttccagtgc tatgaccgca ctctctccat 180
gccctacgtg gagaccaacg aggagctcga g
<210> 2101
<211> 223
<212> DNA
<213> Homo sapiens
<400> 2101
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aaaattaata tattttcagg cgtatttttg tacagtgaaa agggaacatt cttgctgtgt 120
tttttcagta agactttcag gcacttcttc ccttttgatt tcttttttt cctctgtttt 180
ttagcatgca agtatgttgg tacgttatgt cctggttctc gag
                                                                   223
<210> 2102
<211> 256
<212> DNA
<213> Homo sapiens
<400> 2102
gaattcgcgg ccgcgtcgac cataaatttt cttcacccta aatattccgt tttgatagtg 60
aagattggtt teetgaactt tegatteaaa etagaaatee aetateattt atttatttat 120
tttttatttt ttgagacaga ggettgetet gtegeecagg etggagtgtg ttggtgegat 180
coetcotage cottocotgt cogettiget etigitetea tatetecage catetotgge 240
tcacaccgac ctcgag
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<210> 2103
<211> 286
<212> DNA
<213> Homo sapiens
<400> 2103
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ctgggctcaa tatgacccac atacttcaga tgggaggact gctattgtcc acctgttcga 120
gtggcgctgg gttgatattg ccaaggaatg tgagcgatac ttagctccta agggatttgg 180
aggggtgcag gtctctccac ccaatgaaaa cgttgtagtt cataacccat caagaccttg 240
gtgggaaaga taccaaccaa tcagctataa aatctgcaca ctcgag
<210> 2104
<211> 238
<212> DNA
<213> Homo sapiens
<400> 2104
gaattcgcgg ccgcgtcgac gaaggcaagc ggtgattgtt tgtagacggc gctttgtcat 60
gggacetgtg eggttgggaa tattgetttt cetttttttg geegtgeaeg aggettggge 120
tgggatgttg aaggaggagg acgatgacac agaacgcttg cccagcaaat gcgaagtgtg 180
taagetgetg ageacagage tacaggegga actgagtege acegateaat etetegag 238
<210> 2105
<211> 289
<212> DNA
<213> Homo sapiens
<400> 2105
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actgggtttc cactcaatgg ttatacgagc actaggagga attctagctc caatatattt 120
tggggctctg attgatacaa cgtgtataaa gtggtccacc aacaactgtg gcacacgtgg 180
gtcatgtagg acatataatt ccacatcatt ttcctcagat tccagttcag aaatgagcat 240
totottcacc ategcacact cagcaaaatc tgattecect gagetegag
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<210> 2106
<211> 231
<212> DNA
<213> Homo sapiens
<400> 2106
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<213> Homo sapiens
<400> 2159
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gaagcaacaa gattgcttgc aacaattgtt atgcttttgt gtttcatatt taccctgtgt 120
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<212> DNA
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<212> DNA
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<211> 130
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<211> 104
<212> DNA
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<210> 2167
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<212> DNA
<213> Homo sapiens
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<210> 2168
<211> 112
<212> DNA
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ttactttgga tatatggcgg tatttagcac agcettgggg aacacteteg ag
<210> 2169
<211> 167
<212> DNA
<213> Homo sapiens
<400> 2169
gaattcggcc aaagaggcca ttcaaagaca cagtatacat tcttctttga atctgtgtga 60
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<211> 139
<212> DNA
<213> Homo sapiens
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tcatgataat gcactcgag
<210> 2171
<211> 110
<212> DNA
<213> Homo sapiens
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<210> 2172
<211> 101
<212> DNA
<213> Homo sapiens
<400> 2172
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tattettage tagaatgaaa etcageatat atacaetega g
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<210> 2173
<211> 105
<212> DNA
<213> homo sapiens
<400> 2173
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atgagactgg atttttgttt tttatgttgt gtgtcacaac tcgag
<210> 2174
<211> 107
<212> DNA
<213> Homo sapiens
<400> 2174
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<210> 2175
<211> 145
<212> DNA
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<400> 2175
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gaaaatcttt ttcgtgagaa tgattgcatt gtcaggatta atgatggcga ccttcgaaat 120
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<212> DNA
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<211> 121
<212> DNA
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<210> 2178
<211> 126
<212> DNA
<213> Homo sapiens
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ctcgag
<210> 2179
<211> 215
<212> DNA
<213> Homo sapiens
<400> 2179
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<210> 2180
<211> 114
<212> DNA
<213> Homo sapiens
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<210> 2181
<211> 144
<212> DNA
<213> Homo sapiens
<400> 2181
gaattcggcc aaagaggcca ttcaaaaata aaagcagagg aagaaaaatt caatagtttt 60
aaactgcttt acaattataa acaaaaaaag attatacaga aaattaactg acaaatgaga 120
aaaatatttg caacaactct cgag
<210> 2182
<211> 105
<212> DNA
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<213> Homo sapiens
<400> 2182
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tttaaagaag attgatagat gctggcaaaa ccattgctac tcgag
<210> 2183
<211> 135
<212> DNA
<213> Homo sapiens
<400> 2183
gaatteggee aaagaggeea tteaaagatg gtgeaaatta getttttate ttetageatt 60
tttttactac ctatatggca tgatctatgt tttggtgagc tcttagaaca acacacagaa 120
gaattgaacc tcgag
<210> 2184
<211> 117
<212> DNA
<213> Homo sapiens
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gaattcggcc aaagaggcca ttcaaaacaa ccctgaaatc tattttgaaa agaaaaggca 60
ccagtgatat cagtgatgaa tctgatgaca ttgaaatttc ttccaagtct actcgag
<210> 2185
<211> 113
<212> DNA
<213> Homo sapiens
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<210> 2186
<211> 113
<212> DNA
<213> Homo sapiens
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<211> 108
<212> DNA
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<400> 2187
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attctgtata tttttgttgt aacatattat ttgagcacaa gactcgag
<210> 2188
<211> 114
<212> DNA
<213> Homo sapiens
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gaatteggee aaageeaaag aggeeattea aaagaettgg ataaettttg ataaaagaet 60
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<211> 187
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ctgcatcctc ttcctgtttt atgggtcagt attacccttc acctgtcgtc tggcaattcc 120
catctctgcc tccaaactag ccctagcccg gagacccctc ctcttctcca actacccaca 180
gctcgag
<210> 2190
<211> 110
<212> DNA
<213> Homo sapiens
<400> 2190
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aggaetttga gatgttgaaa ttacattatt taattacagg geteetegag
<210> 2191
<211> 106
<212> DNA
<213> Homo sapiens
<400> 2191
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cttcgatttt atgaaaatgg agaactctgt gatgccaccc ctcgag
<210> 2192
<211> 105
<212> DNA
<213> Homo sapiens
<400> 2192
gaatteggee aaagaggeea tteaaaaaat tteagttgga tttttagaag taacttaata 60
ctctaaaatt tatatggaaa aatgaaggtt cccaatttgc tcgag
<210> 2193
<211> 125
<212> DNA
<213> Homo sapiens
<400> 2193
gaattcggcc aaagaggcca ttcaaaatat tttcatgttc aaaatttaag ttttacattt 60
ttactactgt taatttaaat aaaatttgtt ctgtggataa aatgaggttg gcagtgagtc 120
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tcgag
<210> 2194
<211> 135
<212> DNA
<213> Homo sapiens
<400> 2194
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ttgcacataa accaaatctt tgcttaagca aaattttaga tgtattgtaa atgtattaaa 120
tacggactcc tcgag
<210> 2195
<211> 101
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<212> DNA
<213> Homo sapiens
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<210> 2196
<211> 126
<212> DNA
<213> Homo sapiens
<400> 2196
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                                                               126
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<211> 111
<212> DNA
<213> Homo sapiens
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<210> 2198
<211> 129
<212> DNA
<213> Homo sapiens
<400> 2198
gaatteggee aaagaggeea tteaaagagg gtggtateta tetagtegta aatattttac 60
tgtaaccaat ttcccatcaa accaagagcc atgcaatgct ttaaaagcct ttccagcatc 120
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<210> 2199
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<212> DNA
<213> Homo sapiens
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<210> 2200
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<212> DNA
<213> Homo sapiens
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gtetetgtet tggtagttgc eggtggacag catggeegtg ecageeteec acteegeteg 180
<210> 2202
<211> 143
<212> DNA
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tgtttgtttt tttcatcctt tctctttcct tttcgttcaa aaattcagtt ccccatccta 120
gaccagactc ctccatcctc gag
<210> 2203
<211> 140
<212> DNA
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ctaccccca gatactcgag
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<210> 2204
<211> 113
<212> DNA
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gaatteggee aaagaggeea teatggagea getgaaggag ttgaageaga agggagaeeg 60
agacaaagag agcttgaaga aggccatecg agcccagaag aagcggcctc gag
<210> 2205
<211> 109
<212> DNA
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gaattcggcc aaagaggcca ttcaaatgcc tatcttctcc agtctacaag ttacatgttc 60
ccacccagca ttacagttct tgaacatgtt atttccccac ttactcgag
<210> 2206
<211> 123
<212> DNA
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gaattcggcc aaagaggcca ttcaaatttg atcatgagat tgcagcaatt cagtcacatc 60
ttcaatgctt tacttccagt tctagttctc ttcctgtttc cacacctage caacgctctc 120
gag
<210> 2207
<211> 123
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gaattcggcc aaagaggcca ttcaaagagc aaagaagaca aaaactcaag gaacatctgt 60
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tgagaagaaa aacgcttttt gcatacaagc aggaaaatga gatgttatcc agtactactc 120
gag
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aatactttct attatgcaca ataccctgac ttcaattgaa agtgatccac atctcgag
<210> 2209
<211> 102
<212> DNA
<213> Homo sapiens
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<210> 2210
<211> 129
<212> DNA
<213> Homo sapiens
gaatteggee aaagaggeea tttgttacaa eteeetatat aaatgeaatt etteattete 60
aagacettat ttytyttytt teeccaetgy aetetteeca aatgeaaace aggeecagte 120
gcactcgag
<210> 2211
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2211
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ctatagttcc ccttcatgaa attcacccc acgttcctcg ag
<210> 2212
<211> 107
<212> DNA
<213> Homo sapiens
<400> 2212
gaattcggcc aaagaggcca ttcaaacatc tctttagtat ttttccgcct aacacttaga 60
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tectgateat attecaggaa aacatgaaag ttgcgateat cetegag
<210> 2213
<211> 152
<212> DNA
<213> Homo sapiens
<400> 2213
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gaatteggee aaagaggeea tteaatatge tettettggt teeatgteee gacaaccaca 60
gaggttttcc cactatcctt gtcctcatgg tattgatgta catgtttgcc atagcagaat 120
tcatatttcc accaaccgac accccactcg ag
<210> 2214
<211> 121
<212> DNA
<213> Homo sapiens
<400> 2214
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gttettgggt ttaatgetet ettettgget gggggeteea ettggegeat gegagetega 120
<210> 2215
<211> 110
<212> DNA
<213> Homo sapiens
<400> 2215
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<210> 2216
<211> 118
<212> DNA
<213> Homo sapiens
<400> 2216
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gacctggacc agtggaagac ctgggttgga attctactct gcacttccgc agctcgag 118
<210> 2217
<211> 148
<212> DNA
<213> Homo sapiens
<400> 2217
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aaactattcc cacaagacag aactcgag
<210> 2218
<211> 116
<212> DNA
<213> Homo sapiens
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<210> 2219
<211> 169
<212> DNA
<213> Homo sapiens
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ccagaaaaga atgeceetet ttegaacttt caaacagttg ggattatttt tgtttettat 120
catcccaatt atttgctcaa gtttgcctcc attgggtccc ggcctcgag
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<211> 120
<212> DNA
<213> Homo sapiens
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<221> unsure
<222> (16)
<220>
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<400> 2220
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cacgcctcat cctctcaaag ccagctcctc tgccaatgct gttataccct cntcctcgag 120
<210> 2221
<211> 103
<212> DNA
<213> Homo sapiens
<400> 2221
gaatteggee aaagaggeea tteaaacage aaataaagaa aateeatagg tactaagata 60
actgttctct cttcatatga tactaacagg cttatggctc gag
<210> 2222
<211> 130
<212> DNA
<213> Homo sapiens
<400> 2222
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tactctcgag
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<210> 2223
<211> 181
<212> DNA
<213> Homo sapiens
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gaattcggcc aaagaggcca ttcttacggt actaaaaatt attgaatata ctcttttcaa 60
attatttaat atgacccaaa attttagaaa tgtgtgttct ctcatactaa tgataatgac 120
ccttaatcta gaaaactgtg ctaaaattat agctattaaa aatcttcctg aagggctcga 180
<210> 2224
<211> 143
<212> DNA
<213> Homo sapiens
<400> 2224
gaatteggee aaagaggeea tteeatttag caactgatea ttttgagaac tgataccaag 60
ctgtatgtcc aagatctctt caattggttc actttgtcca tcaggttcat cagtatcaag 120
tgctgaaage tctaactete gag
<210> 2225
<211> 152
<212> DNA
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<213> Homo sapiens
<400> 2225
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ggccgctgtc ccttcccgtc cccagtctcg ag
<210> 2226
<211> 135
<212> DNA
<213> Homo sapiens
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gaattcggcc aaagaggcca ttcaagaatt taaaaaatga tatttaggta ccaagtccag 60
attgtaactc ttggaatttt tctcctggaa gcatttagtt atatttctgt cccctttcaa 120
aatgaacccc tcgag
<210> 2227
<211> 120
<212> DNA
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gaattcggcc aaagaggcca ttcaaaagac aaactggata cattgagctt accagaaaga 60
aagtgaatca gettgeatta caattetatg ttaaataatt tatttaetat tacaetegag 120
<210> 2228
<211> 148
<212> DNA
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<220>
<221> unsure
<222> (57)
<220>
<221> unsure
<222> (134)
<400> 2228
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gcagtcaccg aacngggttt cactcgag
<210> 2229
<211> 161
<212> DNA
<213> Homo sapiens
<400> 2229
gaatteggee aaagaggeea tteaaateae acatttetae accaateate ataagaaaaa 60
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tatttaatgt tatatacatt tattacccac ccacactcga g
<210> 2230
<211> 203
<212> DNA
<213> Homo sapiens
<400> 2230
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ccaggctgga gtgcagtggt gcaatctcgg ctcactgcaa cctcacctcc ccggttcaag 180
gaattetece acteaecete gag
<210> 2231
<211> 106
<212> DNA
<213> Homo sapiens
<400> 2231
gaattcggcc aaagaggcca ttcaacagag gaagaaatca aatcatcctt tctagaaaca 60
ttaaaagttg cctgcagcaa gtctgatgaa gtgtcattgg ctcgag
<210> 2232
<211> 143
<212> DNA
<213> Homo sapiens
<400> 2232
gaatteggee aaagaggeea ttetegaeae cetetgtaea cageatgege tttatttgge 60
ttetettacg cagegragtg acttteagat ttatteaage tgetgegtge gecaacagte 120
cacteettee tagtgeacte gag
<210> 2233
<211> 161
<212> DNA
<213> Homo sapiens
<400> 2233
gaatteggee aaagaggeea tteaacettg ttaaaagaaa etgggaatte tgtagagtet 60
gctgactgct ttctgtatta gctatgttgg ttgttgctgt ggattgtgtg attgtagtgg 120
tgacactgct tgtgttagta cgccgggttg cattactcga g
                                                                   161
<210> 2234
<211> 114
<212> DNA
<213> Homo sapiens
<400> 2234
gaattcggcc aaagaggcca ttcagatatg tttatatcat tactagtaaa tggcacaatt 60
atattgtgtt gcagtgtgtt gatgttaaag tcaaaggctg cagcatgtct cgag
<210> 2235
<211> 150
<212> DNA
<213> Homo sapiens
<400> 2235
gaatteggcc aaagaggcca ttcaaagtat acacaaatat tatagtatta taaaatcagc 60
agataactgc attaacagga ctttacgttt aggaactaca tccttccatt tgaggattaa 120
aatatgtatc ttatatacca ctttctcgag
                                                                   150
<210> 2236
<211> 158
<212> DNA
<213> Homo sapiens
<400> 2236
gaattcggcc aaagaggcca ttcacaaata ttacagtttg ataaaaactt cacacacata 60
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ctcccaaagt ctataccaga ttcagtcaac tttactaaat cattcaaata ataaaagtaa 120
tgaaaacatt attatattt aaagcaataa gtctcgag
<210> 2237
<211> 203
<212> DNA
<213> Homo sapiens
<400> 2237
gaattcggcc aaagaggcca ttcaagaaga cttaaaaaaa atacaatatc caattagaaa 60
agceatattt taaacatttg tacaagaata agctgctgaa acttagtaat tgaaatatga 120
catctgtaca acaatttaca atagagctag aagggaattt atcattatcc tgcatagaac 180
tggtctgcat ttggttcctc gag
<210> 2238
<211> 136
<212> DNA
<213> Homo sapiens
<400> 2238
gaattcggcc aaagaggcca tgaagttatc agatgttgca aacacatgct ttttgccttt 60
tcacatggtt atgatctctc gtgtgtgtaa tgtgaggtcc caatgctccc acttctacgc 120
ccaatcacag ctcgag
<210> 2239
<211> 142
<212> DNA
<213> Homo sapiens
<400> 2239
gaattcggcc aaagaggcca ttcaggtggc attgatctgg gagaagagca gcatcccttg 60
ggcacaccca ctccaggacg caagcgaaga aggaagggag gagacagtga ttatgacgat 120
gatgatgacg atgacactcg ag
                                                                  142
<210> 2240
<211> 178
<212> DNA
<213> Homo sapiens
<400> 2240
gaatteggee aaagaggeea tteaaactgg gaaatetgaa ttacacgata ceccagaatt 60
tocaaatgtc gttttttca tagcagattt tcctttcatg tgagggatat ttctacaaag 120
tgcttttgaa tccaaaaatt ccaaagcaat cctttcagcc cctggtggca tcctcgag 178
<210> 2241
<211> 141
<212> DNA
<213> Homo sapiens
<400> 2241
gaatteggee aaagaggeea tttettete taageagaag ggatageeac cattttetee 60
cctgactgct gcgtggtggg cacaggacag gcaggegggg tctgaggagg ctgggtcatt 120
tctgcctaag cgcacctcga g
                                                                  141
<210> 2242
<211> 130
<212> DNA
<213> Homo sapiens
<400> 2242
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gaatteggee aaagaggeea tteaaagaga cacagagata egetgagtga tacagaggtt 60
cagacacact ttcagaatca caacgacact cagagacaca aaaatgcatt tagggatact 120
gatactcgag
<210> 2243
<211> 132
<212> DNA
<213> Homo sapiens
<400> 2243
gaattcggcc aaagaggcca ttcaaagaag agtcttatat gagatcaaat ggctgccttt 60
ccccacaaga ttatatttt cctggtatgc tctactttga cacatgtggc tttctcaggt 120
<210> 2244
<211> 197
<212> DNA
<213> Homo sapiens
<400> 2244
gaatteggee aaagaggeea tteaaactaa ttteeaagat tetaaaagtt etteataatt 60
tgtctttctt cccattcctt cacattgacc tctgcaacct tattccttgc cagccattac 120
caatgagaat attetetgat ttacccagaa agatcatgat etttgaacta getattegtg 180
ctacctcatc cctcgag
                                                                   197
<210> 2245
<211> 128
<212> DNA
<213> Homo sapiens
<400> 2245
gaattcggcc aaagaggcca ttgtgaaaac tcctaaaata tagaatagca ggagcaaaga 60
ggctctctag agaggaactg agtgttttta tatgaaattg tggccacatg aaactcagga 120
tactcgag
<210> 2246
<211> 114
<212> DNA
<213> Homo sapiens
gaatteggee aaagaggeea tteagtgtgt tgacaataat eagtetgtte tagtatetge 60
acatacetea gegggaaaaa eagtatgege egagtatgee attgetteet egag
<210> 2247
<211> 238
<212> DNA
<213> Homo sapiens
<400> 2247
gaatteggee aaagaggeea tteaaagata eeaateaatt tettaetggt gaaatatata 60
agaacttcca ggagtcacaa gagttccaaa caattaattt ataaaaataa caaaacattt 120
gtctatgaaa aaaagatcag gattcactct catcgacgtc ctcatctgga tggtgctcag 180
catceteett tteetgetge tgtttettee acagtttgge tattteagga atetegag
<210> 2248
<211> 148
<212> DNA
<213> Homo sapiens
```

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<400> 2248
gaattcggcc aaagaggcca ttcagttgcc ccggatctgt gtcatctttc tgtagctttt 60
cccactggga acttgatatt tccctgagat aaacagtctg catagctttc ttcaaatgag 120
gttcaatatt tctccacagt tactcgag
<210> 2249
<211> 152
<212> DNA
<213> Homo sapiens
<400> 2249
gaattcggcc aaagaggcca ttcaagaata cacactctgc aagttctaag cctgtattta 60
gteteaaace accgetetge acactacaaa gattttggta taacgtatca catctagaga 120
aaggcacaat gtatttccca ctatttctcg ag
<210> 2250
<211> 190
<212> DNA
<213> Homo sapiens
<400> 2250
gaattcggcc aaagaggcca ttcaaaggga ggtaagtggt attgtaaacc aaagtaaaaa 60
tacaaaaatg ttatgettgt tatgetatat getetatttt tetgtetttt tattttttt 120
tgagacggag teteactetg ttgeccagge tggagtgeag tggegagate teggeteace 180
                                                                   190
gaacctcgag
<210> 2251
<211> 137
<212> DNA
<213> Homo sapiens
<400> 2251
gaatteggee aaagaggeea ggttegtgaa gttegtaaag aagageaaeg ttatagtggt 60
gaattatctg gcattcgtgc aggagttaaa aagagcatta agcttaaatg aagtttttgc 120
                                                                   137
ttagcataac actcgag
<210> 2252
<211> 116
<212> DNA
<213> Homo sapiens
<400> 2252
gaattcggcc aaagaggcca ttcagtgctg atccaggaat aaatttcacc ttttttaaca 60
attecttggc tgcagtctta atatecgtga tgtttataaa ccactgcttg ctcgag
<210> 2253
<211> 149
<212> DNA
<213> Homo sapiens
<400> 2253
gaatteggee aaagaggeea teaaateaaa agtgaaaagg agtaaaaett etaaggatge 60
taataaatct etgeettetg etgeettgta tgggatteee gagateagea geactggeaa 120
gaggcaggaa gtccggggtc gctctcgag
<210> 2254
<211> 101
<212> DNA
<213> Homo sapiens
```

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<400> 2254
gaatteggee aaagaggeea tteaaagaga aettgagatt caaaagaaaa ggetggataa 60
attaaaatct gaggttaatg aaatggaaaa taatcctcga g
<210> 2255
<211> 103
<212> DNA
<213> Homo sapiens
<400> 2255
gaattcggcc aaagaggcca ttcaatttca tctctgtctc ccccgattgc catccagaat 60
gctttggcca ccttttctgc atgcactttt cttcactctc gag
<210> 2256
<211> 172
<212> DNA
<213> Homo sapiens
<400> 2256
gaatteggee aaagaggeea tteaaaagge ttgtgggttt tttaaaaact gttttaaaat 60
tcattcttca aaaatgttca gacatgacca cgttggtttc atcacagtgc ttatgaagtt 120
tetteatttt teatgtgtee aageaggeet gaacaccccc acttteeteg ag
<210> 2257
<211> 108
<212> DNA
<213> Homo sapiens
<400> 2257
gaattcggcc aaagaggcca ttcaaacaaa taattaagca aatactttaa tacttacaac 60
                                                                108
tgtgacacaa tagccatgaa gaaaaaggtg ctgttgatga gtctcgag
<210> 2258
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2258
gaattcggcc aaagaggcca ttcaaaaaat atgtggtcaa gaactaaacc aaacaaacct 60
ggatgatect aggecaaaac aatteettte caggeacteg ag
<210> 2259
<211> 133
<212> DNA
<213> Homo sapiens
<400> 2259
gaattcggcc aaagaggcca ttctttgcaa gtcatccatg ttgttactta ggcattttat 60
cttggctcaa attgttgaag aatggtggct tgtttcaaga agtgtggcaa gcaccaaccc 120
                                                                133
cataaagctc gag
<210> 2260
<211> 179
<212> DNA
<213> Homo sapiens
<400> 2260
gaattcggcc aaagaggcca tttatgttta atgcaactat tgaaatgttt ggctttagat 60
ctaccattat gttgtttct gtttgttccc tgttttccat tgctgtttct tctttccttt 120
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<210> 2261
<211> 109
<212> DNA
<213> Homo sapiens
<400> 2261
gaattcggcc aaagaggcca ttcataatac taaaaagtta aagattacct aaatctgtaa 60
cagtagaaaa ttatctaaat aaattatgaa atatacatcc atcctcgag
<210> 2262
<211> 105
<212> DNA
<213> Homo sapiens
<400> 2262
gaattcggcc aaagaggcca ttcaaagtca tctaaccaaa taccttcccc cacagctaag 60
aaagaatccc agtgtttccc tagtttagag atgaagatac tcgag
<210> 2263
<211> 231
<212> DNA
<213> Homo sapiens
<400> 2263
gaattcggcc aaagaggcca caaatagtgt aacaaatcca aattgagtaa ctgtttctaa 60
gtactcatag aaaagcccaa ggggtccaaa actttcaagg tcatgatcct gctcccatcg 120
actatacage ttetcagagt ttgteegage tttteggegt etecaceaat teaaageeaa 180
gggataaatg gcttctttaa tgtttccaaa aatctgtttc ccggtctcga g
<210> 2264
<211> 120
<212> DNA
<213> Homo sapiens
<400> 2264
gaattcggcc aaagaggcca ttcaaagaga attggtagag ggggttgatt ttttggaggt 60
cattaataac aaaataaaga agagatgctc ttgctgccaa tggtctgtaa cattctcgag 120
<210> 2265
<211> 233
<212> DNA
<213> Homo sapiens
<400> 2265
gaattcggcc aaagaggcca tacagctctg ttcccatgaa cttcttccgc tcccatttgc 60
cgtccttcat cgaagccgtc gcctggggaa tctgcctggc caggcacatg atcattccac 120
aagtgagttc tgcggcactg aggctgttcc cattgggggt gttcataacc aagatgccct 180
teettgttge ggeeteeaga teeacattgt ceacacetgt geeageeete gag
<210> 2266
<211> 151
<212> DNA
<213> Homo sapiens
<400> 2266
gaattcggcc aaagaggcca ttcaaagata ggcttggtgg gacaaaacta atatgcatac 60
tacatacata tatttettgt ettetttaet gteaatettt cagaacagta acatgacatt 120
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acaaacacct caaattccca cttctctcga g
```

<210> 2267

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<211> 117
 <212> DNA
<213> Homo sapiens
<400> 2267
gaattcggcc aaagaggcca tttagactat ctctttgcta atttttgctt actgctgtag 60
ggaagaagat ttccaatgaa ctttaaatat ctcattcatg tctaccattg tctcgag
<210> 2268
<211> 132
<212> DNA
<213> Homo sapiens
<400> 2268
gaattcggcc aaagaggcca aaggctaaga ctgtctaagt ccagatattc gaaagcaagc 60
taattattat tgaaactcta agatattatt aagaaggaca atcaagaaat gaaagctgta 120
cttgttctcg ag
<210> 2269
<211> 101
<212> DNA
<213> Homo sapiens
<400> 2269
gaatteggee aaagaggeea tteaaatagt tegtacaaet acagatacea gtteteatag 60
cttggcatat tcaaccatat atgaaaacgc atttcctcga g
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<210> 2270
<211> 106
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (86)
<220>
<221> unsure
<222> (88)
<400> 2270
gaattcggcc aaagaggcca ttcacgattc agaattttct gtttaaaaaat ctttcgaagt 60
atgttatatc acttattttc atcagnanaa cgtcatggct ctcgag
<210> 2271
<211> 148
<212> DNA
<213> Homo sapiens
<400> 2271
gaattcggcc aaagaggcca ttttctgttt catcatcatc agatccttct tctccctttg 60
gatgtettet cetetttte ttetttetet caccaccete etcatettea cettettgtt 120
cactgccact accetatett etetegag
<210> 2272
<211> 115
<212> DNA
<213> Homo sapiens
<400> 2272
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gaattcggcc aaagaggcca tgacttcatt ttcaaatatt tctggggctg tttgtatctt 60
gttcctttgt gaagtgtgtt gcagaaccga cgcttactgt gcaagagatc tcgag
<210> 2273
<211> 107
<212> DNA
<213> Homo sapiens
<400> 2273
gaatteggee aaagaggeea tteaaatett ateaaatgaa aetgttgeea etettaaatt 60
acacaaccgc tgtatttcag tgttccactg actcacaatc actcgag
<210> 2274
<211> 108
<212> DNA
<213> Homo sapiens
<400> 2274
gaattcggcc aaagaggcca ttcaattttt cattttcctg ctcaatatta gccatttttt 60
cactagtcaa tattcctgat gcttttttca actgttcatt ttctcgag
<210> 2275
<211> 144
<212> DNA
<213> Homo sapiens
<400> 2275
gaatteggee aaagaggeea tteattacet tegeteatga teecageage catttttett 60
aacaccttct gccactttct gtcggtgcta atggatggaa ctcctgcaca agttttaact 120
gaacaagaaa ccccaaggct cgag
<210> 2276
<211> 113
<212> DNA
<213> Homo sapiens
<400> 2276
gaattcggcc aaagaggcca ttcaacttcc atagtacatt ttacagtgag caattcatac 60
aacagtatac aacagtgatg atcttgagaa aaataaaaag ctgcatgctc gag
<210> 2277
<211> 176
<212> DNA
<213> Homo sapiens
<400> 2277
gaatteggee aaagaggeea ttecataget tgeetttttg eteteagtta ttteetttga 60
tgcacaattt ttttacattt gatatagaca catttgtctg tttttggttt ttttatgtat 120
getttggatg teatacecaa gaaatetttg ceaaatecag tgtccagaat etegag
<210> 2278
<211> 140
<212> DNA
<213> Homo sapiens
<400> 2278
gaatteggee aaagaggeea tteataagaa agtgttatat etaggttttt aaaaetgaag 60
ttgaaattat ctttgttagc agtagtagta tagaataaaa gatccgtatg ctggttcgta 120
gattgatacg tgtcctcgag
                                                                   140
```

```
<210> 2279
<211> 128
<212> DNA
<213> Homo sapiens
<400> 2279
gaattcggcc aaagaggcca ttgatgtgtt tgtggaagct actcatgttg cccttgcatt 60
ggggagcctg gttagaactc tgtaacctga tcacagacaa agagatggta aattgtgatg 120
agctcgag
<210> 2280
<211> 114
<212> DNA
<213> Homo sapiens
<400> 2280
gaattcggcç aaagaggcca ttcaaactgc tgctgttcaa aacgtgaaat gattctgctg 60
aatccattct tgatgtctct ctttagtggt cttctcatta gtggtcatct cgag
<210> 2281
<211> 110
<212> DNA
<213> Homo sapiens
<400> 2281
gaatteggee aaagaggeea ttetetteee etgtgtgeet eagtgteett eteattteag 60
tagggacttc tgaaatgggg gaggcagtgt ggaatactgt gaatctcgag
                                                                   110
<210> 2282
<211> 136
<212> DNA
<213> Homo sapiens
<400> 2282
gaatteggee aaagaggeea tteaaaggga aacaaatate agtaateete tttgttetaa 60
acaaaaattc ataattattt atacatttta aaatattata ttgtttcaaa tgttgttagt 120
                                                                   136
ggggcatatc ctcgag
<210> 2283
<211> 104
<212> DNA
<213> Homo sapiens
<400> 2283
gaattcggcc aaagaggcca ttcaaacaag aaattatgcc aatcaactgt caaattttca 60
                                                                   104
ctataatttt cctaaaaagg cgtttttccc ccaataatct cgag
<210> 2284
<211> 170
<212> DNA
<213> Homo sapiens
<400> 2284
gaattcggcc aaagaggcca ttcaaactct aacacaaaat gatcacaggc tggcagagac 60
acagaagcag gcaacaattt atctggggtc taatcagagt catcataact ctcatcacta 120
tettgeteet ttteteeage acttactteg tettetteae cateetegag
<210> 2285
<211> 116
<212> DNA
```

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<213> Homo sapiens
<400> 2285
gaatteggee aaagaggeea tteaaaaget teteageace ateceaettt teetgtttgt 60
ttattactct tcaacagcag tttcacctca tgctttttaa ttttgtcatc ctcgag
<210> 2286
<211> 125
<212> DNA
<213> Homo sapiens
<400> 2286
gaattcggcc aaagaggcca ttcagtctcc ttatcatgat tttggacccc gatctctttt 60
tectettgtt etttgagget gtgggtatet tgggaggete etectettet tecacaatac 120
<210> 2287
<211> 194
<212> DNA
<213> Homo sapiens
<400> 2287
gaattcggcc aaagaggcca ttctgtatat cctgaacaaa gccatcttta tcatagccat 60
tagtgacaat gacttccaaa ttcttatggt ctgctgactt cttcatcatt ttcttatcat 120
tateactttg ttetgeteet tteacttett ettgggeete ttetteetea gaeteggete 180
cactgtcact cgag
<210> 2288
<211> 126
<212> DNA
<213> Homo sapiens
<400> 2288
gaattcggcc aaagaggcca ttcaaagagc tattcaatgt cagttacaag cctgtcccaa 60
ttatatecet actaeteace ateceegeac etateactgg cattttetgt ceatatetta 120
<210> 2289
<211> 116
<212> DNA
<213> Homo sapiens
<400> 2289
gaattcggcc aaagaggcca ttctccacac tttaaatttg acttgacatt ttctaggcag 60
atataagtta ttagagaatg agatteteta taaaaatgat ceetteattt etegag
<210> 2290
<211> 312
<212> DNA
<213> Homo sapiens
<400> 2290
gaattcggcc aaagaggcca ttcaaagctt ctcaagtcag ctaagtcaga cagaactgca 60
gagatagaag tagaagggaa ctcagattct tcctcagcta gggtagaatc caggaacctc 120
gagtaatagc cattetgact ggtgttaggt ggtatetegt tgtggttttg atttatttgc 180
atttctctaa tgatcagtga tattgaggtt tttttaatag gcttgttggc tgtatgtata 240
tegtettttg aaaagtgtet ggetggggeg gtggeteagg cetgtaatce cagcactttg 300
gataggctcg ag
```

<210> 2291

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<211> 148
<212> DNA
<213> Homo sapiens
<400> 2291
gaattcggcc aaagaggcca ttcaaatgat gttatttctt ggttgcaacc agttgtttca 60
attiticitta titigateeat acattitatt tettetigtg ticcattitig tigtagtagt 120
gtctcttcgg gattcggctg gcctcgag
<210> 2292
<211> 128
<212> DNA
<213> Homo sapiens
<400> 2292
gaattcggcc aaagaggcca ttcatgcaga cttttttaac gattttgaag atctttttga 60
tgatgatgac atccagtgag atgccctctg gctgcaggcg gggccaagcc cttggcacag 120
agctcgag
<210> 2293
<211> 100
<212> DNA
<213> Homo sapiens
<400> 2293
gaatteggee aaagaggeea ttattettee aattacttta ggaaatttat tatettttga 60
atatcagaac caaatgttac taactatccc aatcctcgag
                                                                    100
<210> 2294
<211> 183
<212> DNA
<213> Homo sapiens
<400> 2294
gaatteggee aaagaggeet agggaeetag egeagggett ttggtaatee ataaaatgga 60
ttctgagact gegacggcaa ggctgtcctg tcccccaggc acccaaggat cctgccagac 120
ageacacttt ggaggaaggt etgeagggag eagetgagee atttgttett gaaegeaete 180
                                                                   183
gag
<210> 2295
<211> 133
<212> DNA
<213> Homo sapiens
<400> 2295
gaattcggcc aaagaggcct agtgtatatt aggctgtctg aaattgtgca acatgttact 60
gatgetttat ttttttteta teteetttte tetetgtagt ceatactgga tagtteetgt 120
tgccggtctc gag
                                                                   133
<210> 2296
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2296
gaatteggee aaagaggeet agtggtatet tgeaggaaet gtgtgetaaa attgaaeaat 60
ttttttgaga ttatggttgc aatacttggc gtgctactcg ag
                                                                   102
<210> 2297
<211> 133
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```
<212> DNA
<213> Homo sapiens
<400> 2297
qaattcqqcc aaaqaqqcct aqatcaqata ggtaaactgc aagatagata ggatgaaact 60
tttggcctac tgtattactt acagagtttt tttgtgtgtg gtttttaaaa ctgttaaggc 120
aagaagactc gag
<210> 2298
<211> 147
<212> DNA
<213> Homo sapiens
<400> 2298
gaatteggee aaagaggeet agttgteagt tgtetetteg ttttgttaag gtttttaata 60
agtacgtttg gcataatgtc ttttaatggg tttgtaatat ttgtaacggt tttagcagcc 120
tataactttt cagctggtgc cctcgag
<210> 2299
<211> 109
<212> DNA
<213> Homo sapiens
<400> 2299
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagtgt gtggcaggtc 60
tagaattcaa tcggccaaag aggcctatga attctagacc tgcctcgag
                                                                   109
<210> 2300
<211> 171
<212> DNA
<213> Homo sapiens
<400> 2300
gaatteggee aaagaggeet agegaegttg acttegaaat tgtaeteect getgtteege 60
aggacctcca ccttcgccct caccatcatc gtgggcgtca tgttcttcga gcgcgccttc 120
gatcaaggcg cggacgctat ctacgaccac atcaacgagg agaaactcga g
                                                                   171
<210> 2301
<211> 131
<212> DNA
<213> Homo sapiens
<400> 2301
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caatcctcga g
<210> 2302
<211> 125
<212> DNA
<213> Homo sapiens
<400> 2302
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tcgag
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<210> 2303
<211> 137
<212> DNA
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<213> Homo sapiens
<400> 2303
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ttttatcctg tattattcaa caggetacag ttettagcag gagagagage gaggagttgt 120
caggaaatgc tctcgag
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<211> 136
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (77)
<400> 2304
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cttccacaca cactcantga tgaaattctt attttactgt ttcctttgct gtgttattgt 120
agatgccaga ctcgag
<210> 2305
<211> 138
<212> DNA
<213> Homo sapiens
<400> 2305
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tattccggga cgccacaaga tacatggatg gacaccatgt aaaggatatt tcatgtctga 120
atcgggaccc agctcgag
<210> 2306
<211> 194
<212> DNA
<213> Homo sapiens
<400> 2306
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cactggatat tgctgtattt tggggttata agcatatagc taatttacta gctactgcta 120
aaggtgggaa gaagcettgg tteetaacga atgaagtgga agaatgtgaa aattatttta 180
gcaaaacact cgag
<210> 2307
<211> 133
<212> DNA
<213> Homo sapiens
<400> 2307
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taatagtatt tgtataaatt tggtggttat gttttttat tttgtttctg ttttgtgtag 120
aggtgatctc gag
<210> 2308
<211> 101
<212> DNA
<213> Homo sapiens
<400> 2308
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<213> Homo sapiens
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<210> 2310
<211> 161
<212> DNA
<213> Homo sapiens
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caacettaaa gttttgaaga agactgatga gactaggtgc tttgcttcct ttcatcaggt 120
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atctttctgt ggcatttgag aacagaaacc aagaactcga g
<210> 2311
<211> 101
<212> DNA
<213> Homo sapiens
<400> 2311
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<210> 2312
<211> 150
<212> DNA
<213> Homo sapiens
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aggaatgtat ttttcgaagg agctctcgag
<210> 2313
<211> 149
<212> DNA
<213> Homo sapiens
<400> 2313
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tgtccaagaa atatctaatc ttaattgttg ttattaatac tagctgggac attatgttgt 120
atatttattt aatttgcatg ggactcgag
<210> 2314
<211> 153
<212> DNA
<213> Homo sapiens
<400> 2314
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ctgtatttct atttcgtgga agcgggactc gag
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<210> 2315
<211> 125
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<212> DNA
<213> Homo sapiens
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attacttttt tttactgttg ctggaagtgt cccacctgct gctcataata aatgcagaac 120
tcgag
<210> 2316
<211> 106
<212> DNA
<213> Homo sapiens
<400> 2316
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aaattagaat tatacaatga cttatttttg gtggcaaatt ctcgag
<210> 2317
<211> 114
<212> DNA
<213> Homo sapiens
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gtgttttttg ttttggggac agggtctcac tgtgtcaccc aggctgatct cgag
<210> 2318
<211> 107
<212> DNA
<213> Homo sapiens
<400> 2318
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ataaactttt tttctgcttc atgcattttt cccagcatct tctcgag
<210> 2319
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2319
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ctatgctgtt tccttgttcc tgctagtgct gctttactcg ag
<210> 2320
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2320
gaattcggcc aaagaggcct aaggataagt actagaaata ttcattttt tccttcacaa 60
atctaaatgt tgcttatgaa aactcatctt agaatactcg ag
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<210> 2321
<211> 100
<212> DNA
<213> Homo sapiens
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gaatteggee aaagaggeet ageggaacag teattataca ttatttagae teatteette 60
```

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100
ttccagtgcc cttatgatta ttttgcattg catactcgag
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<211> 102
<212> DNA
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attetectaa tgaaactgtt ggtttegaga geeetteteg ag
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<210> 2323
<211> 158
<212> DNA
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taatgeettg getaaaaage etgetteaet ttteeetgtt tttagttgtt tteteeacat 120
tggcagtaaa gagccttggc gtcccaggac aactcgag
<210> 2324
<211> 151
<212> DNA
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gaattcggcc aaagaggcct agttaatttt tctaatttta ccaaagtttg cagcctatac 60
ctcaataaaa cagggatatt ttaaatcaca tacctgcaga caaactggag caatgttatt 120
tttaaagggc atactggagg ttctccctat a
<210> 2325
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<23.2> DNA
<213> Homo sapiens
<400> 2325
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cctcgag
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<210> 2326
<211> 196
<212> DNA
<213> Homo sapiens
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tttgtataag ctttgcctgg gctcaccctc tcctggacac tgttttaaag tgtcaccgct 180
gtccatgcga ctcgag
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<210> 2327
<211> 109
<212> DNA
<213> Homo sapiens
<400> 2327
gaatteggee aaagaggeet eggaaggeag geacacgaag acacaggtat gtegggaagt 60
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gcacacaaac cgttgtcttt cctttttggt taaagaagaa aaactcgag
```

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<211> 126
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<213> Homo sapiens
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aaagttttta tttttattcc agtgtttgtg gattttttcc aaaaacctaa gaaaacccaa 120
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<211> 265
<212> DNA
<213> Homo sapiens
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ctggaacagc cacaaaccac caaggattgc cagctgtgga ttcagagata ctggagatgc 120
cacctgaaaa agcagatgga gtagtggagg ggatagatgt aaatggacca aaagcacagc 180
tgatgttgcg gtatccagat ggaaaaaggg aacagatcac tcttccagag caagctaaac 240
tgctagcttt ggagaagcac tcgag
<210> 2330
<211> 164
<212> DNA
<213> Homo sapiens
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ctgtttctaa aaaccacaaa ctaagaatga taaattatca atatagttta gtatttgcta 120
attitactac actotitigt tatgtatatg taggaagtot cgag
<210> 2331
<211> 129
<212> DNA
<213> Homo sapiens
<400> 2331
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taggaaaaaa taataatttc tcctaatatg attatttatt atagaatttt atgtctccat 120
gtactcgag
<210> 2332
<211> 104
<212> DNA
<213> Homo sapiens
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<210> 2333
<211> 170
<212> DNA
<213> Homo sapiens
<400> 2333
gaatteggee aaagaggeet acteagttae ettetaaeta ataggetggt teaggagaet 60
ctcccagttt ataaatggtt ctcttgggag cctttggaag ctgtattaaa tctttcagtc 120
ttttatttct aatttttct cttaatctaa atagaggcca gtgtctcgag
```

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<210> 2334
<211> 102
<212> DNA
<213> Homo sapiens
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ttctgtgatg tctttttaac tttttggaaa gaggaactcg ag
<210> 2335
<211> 125
<212> DNA
<213> Homo sapiens
<400> 2335
gaatteggee aaagaggeet aettaaacat aagegaaace agtageaagt atgtgggtea 60
gettaaaaat tetgateget aatgeeetat tetetaatte ggeacetett gatgeegaac 120
tcgag
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<211> 416
<212> DNA
<213> Homo sapiens
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tgtgaaacgt gtttcaagat aggcctcttt ggccgaattc ggccaaagag gcctactctt 120
tactcaccct cactcagcct aaccttgctt ccgattttat taaggaaatc caatcaatca 180
gaagaggttt ctacaattta ctatcacatt tacccaccag ccatcacctc tgccatatat 240
getectetee tattecaatg getggaatgt eteagggaag accaageest teacttgtas 300
attagatece agetetetgt eccatecatt atggaagetg cacateacce cagteacaca 360
agagggcact ctgaatgagg aatcttgtaa actactccaa atcaccgctt ctcgag
<210> 2337
<211> 112
<212> DNA
<213> Homo sapiens
<400> 2337
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<210> 2338
<211> 127
<212> DNA
<213> Homo sapiens
<400> 2338
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actcgag
<210> 2339
<211> 187
<212> DNA
<213> Homo sapiens
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```

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<213> Homo sapiens
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gttcttttgg tcttcgtgag ttttctcaaa tccgatatga tgctgtgaag agtaaaatgg 180
<210> 2341
<211> 111
<212> DNA
<213> Homo sapiens
<400> 2341
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aaatacatta ttagaatata aaaaatgtta ttactgagga aatatctcga g
<210> 2342
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<212> DNA
<213> Homo sapiens
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<210> 2343
<211> 162
<212> DNA
<213> Homo sapiens
<400> 2343
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attagagact gtcaaaatta tttcttaaga agcaccctcg ag
<210> 2344
<211> 169
<212> DNA
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tatattecae gaateetttt tetggateee agtggeaagg tgeateetga aateateaat 120
gagaatggaa accccagcta caagtatttt tatgtcagtg cccctcgag
<210> 2345
<211> 131
<212> DNA
<213> Homo sapiens
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gagcactcga g
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<211> 275
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caattgaggc actcagttta tgaggtetta etgatgttte etetettagg tgetgtagtt 180
aaaatcttgc tggtctaaaa tggtgaaaac tattgaggta ttcaaatgat aagtacttta 240
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<212> DNA
<213> Homo sapiens
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gaatteggee aaagaggeet attttttate ttttttettt ttttttett aagetatata 60
aaaaggtgag gaagcagttt tgttacctaa tgaaaattat tacactcata atactcgag 119
<210> 2348
<211> 181
<212> DNA
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ctggcaagcc ccaccgggaa aggagggctc agaaggcgta gcgggtccgg atatcctcga 180
                                                                   181
<210> 2349
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<212> DNA
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<212> DNA
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cttccatgtc ctcagtgtca agtacttcac tttctggagt taattcagcc cagttttcac 180
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<210> 2351
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<400> 2351
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<211> 168
<212> DNA
<213> Homo sapiens
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tattttatgt taatcttgtc aatgagaggg accagttggt gttgcccaat cagcactcca 120
aggetgtgtg tgcaccagee agagagegea eggtggcaeg tactegag
<210> 2353
<211> 134
<212> DNA
<213> Homo sapiens
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gaattcggcc aaagaggcct actaaagtat taaaagtaca gaggaaaaac taagcaagca 60
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tgcaaccact cgag
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<211> 163
<212> DNA
<213> Homo sapiens
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tatttaactg tactgttcag tagtgttaag tcattcgcat tgttgtcaat taatatccag 120
aagttttttc aacttaatga aactaaaaca ttataccctc gag
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<210> 2355
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<212> DNA
<213> Homo sapiens
<400> 2355
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agacttgggg ctttcactta tcataagatg aaaactaatt ttcattgttt cctcgag
<210> 2356
<211> 224
<212> DNA
<213> Homo sapiens
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gtagtaaagt gaaatattca aggeteteea geacagaega tggetacatt gaeetteagt 120
ttaagaaaac ccctccaaag atcccttata aggccatcgc gcttgccact gtgctgtttt 180
tgattggcgc ctttctcatt attataggcc cccacccact cgag
<210> 2357
<211> 105
<212> DNA
<213> Homo sapiens
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gatetegag						129
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caactcgag						129
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aggaggtcac	tcgag					135
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tttagcctgc	ctcgag					136

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<212> DNA
<213> Homo sapiens
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<210> 2365
<211> 155
<212> DNA
<213> Homo sapiens
<400> 2365
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tgaagaaact attatttcag atgtgcatac acctgagcga actatggact agacaggtcg 120
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<210> 2366
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<212> DNA
<213> Homo sapiens
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atagatataa ggcatggttt cattgaagtc agtactcgag
<210> 2367
<211> 108
<212> DNA
<213> Homo sapiens
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atggcaggaa gatgtatttg tacaccagac tgccataaag gcctcgag
<210> 2368
<211> 131
<212> DNA
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gaatteggee aaagaggeet aattteeett taaaataact atttattta aaataactat 60
tggcaataag gaaactgttc aaagtagagg cagatcttga tagaaagatg ttaatcacag 120
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gctttctcga g
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<212> DNA
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gaattcggcc aaagaggcct agattgattt cttcttcatg gtgttttttc aaagctgcca 60
gttgttctct actctgtgct cggaaatatc gttcctcttc agcctgctct ctctttccga 120
aggececace ggetteeegg atggageeeg egeceeggte atcetegag
<210> 2370
<211> 118
<212> DNA
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<213> Homo sapiens
<400> 2370
gaattcggcc aaagaggcct actttgagga aagcagtggg attttgcttt ttgttttgga 60
agccatgttg tgtggtctgt ggacctgctt gctttttttg aatgtgagtc agctcgag 118
<210> 2371
<211> 107
<212> DNA
<213> Homo sapiens
<400> 2371
gaattcggcc aaagaggcct agctctccag tagaatttta gttgaattaa atcataagag 60
aaacaatgat tattgcacat attatacttg tcacactaca tctcgag
<210> 2372
<211> 136
<212> DNA
<213> Homo sapiens
<400> 2372
gaattcggcc aaagaggcct acttaagaag gaattaaaaa aaaaaagctt tgccaatagc 60
taaaaagtac aagctattaa aaatcagatt gaaaagtttt gagaaaatgt tatttttact 120
gaaagcaacc ctcgag
                                                                   136
<210> 2373
<211> 104
<212> DNA
<213> Homo sapiens
<400> 2373
gaattcggcc aaaagaggcc tacagttaca ttcgaattta gacgggtata ggattttggt 60
ttttcaagat gaaaaaactt atagtggtga gggttgcact cgag
<210> 2374
<211> 117
<212> DNA
<213> Homo sapiens
<400> 2374
gaatteggee aaagaggeet ataettetgg gaetggaata taaaaaagaa teaaaggtte 60
tgattttgag ttgcaataaa gggaaagacc atgctcatag cagtgccaat actcgag
<210> 2375
<211> 133
<212> DNA
<213> Homo sapiens
<400> 2375
gaattcggcc aaagaggcct acaataaaga gatgcgtgtg actagttttg gacttttaac 60
cttaatgggg gttgcatgtc tcctattgtt aatcattgtc agctgcagtg acatgatcca 120
cagtcctctc gag
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<210> 2376
<211> 529
<212> DNA
<213> Homo sapiens
<400> 2376
gaattcggcc aaagaggcct aatggcggtg gcaaattcaa gtcctgttaa ccccgtggtg 60
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ttetttgatg teagtattgg eggteaggaa gttggeegea tgaagatega getetttgca 120
gacgttgtgc ctaagacggc cgagaacttt aggcagttct gcaccggaga attcaggaaa 180
gatggggttc caataggata caaaggaagc accttccaca gggtcataaa ggatttcatg 240
attcagggtg gagattttgt taatggagat ggtactggag tcgccagtat ttaccggggg 300
ccatttgcag atgaaaattt taaacttaga cactcagete caggeetget ttccatggeg 360
aacagtggtc caagtacaaa tggctgtcag ttetttatca cctgctctaa gtgcgattgg 420
ctggatggga agcatgtggt gtttggaaaa atcatcgatg gacttctagt gatgagaaag 480
attgagaatg ttcccacagg ccccaacaat aagcccaagc aatctcgag
                                                                  529
<210> 2377
<211> 106
<212> DNA
<213> Homo sapiens
<400> 2377
gaatteggee aaagaggeet acateatttg aacttatttt attgatacte attagtgaat 60
aaaattgtgt tgatttttga tgcattacaa cacactttta ctcgag
<210> 2378
<211> 112
<212> DNA
<213> Homo sapiens
<400> 2378
gaatteggee aaagaggeet aegattteta ttettgaaag aateaactae agtgaateet 60
ttgcatttga agccttaaca tgcattgctt taattttgcc caggtgctcg ag
<210> 2379
<211> 103
<212> DNA
<213> Homo sapiens
<400> 2379
gaattcggcc aaagaggcct atataattaa aaatttacta atgcaaacaa gatttacagt 60
ctttaataca atcttaattt tggaattcat gaaggaactc gag
<210> 2380
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2380
gaattcggcc aaagaggcct aaaccaaaat atgttgtggc tggtgccagt atttttgtta 60
atgaaatgtt cagtgtctca ctacagtctg atcgaactcg ag
<210> 2381
<211> 105
<212> DNA
<213> Homo sapiens
<400> 2381
gaattcggcc aaagaggcct actgctgttt aaagttaaca tttgaatgaa acactttttt 60
actaaagtat tagaaatagg agtgcaggta aaggcaattc tcgag
<210> 2382
<211> 118
<212> DNA
<213> Homo sapiens
<400> 2382
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gaattcggcc aaagaggcct agttaatgag gccaattttt ccagcattta taattatttt 60
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<210> 2383
<211> 116
<212> DNA
<213> Homo sapiens
<400> 2383
gaattcggcc aaagaggcct aagatgatgg tgatgatttt gttcggggtc tcatttgtat 60
ttettaceca etgeaceate caaageagea geataaaete agagatgate etegag
<210> 2384
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2384
gaatteggee aaagaggeet agactacttg tteetgtgee etettgtttt aggeetegtt 60
tacttttaaa aaatgaaatt gttcattgct gggatactcg ag
<210> 2385
<211> 109
<212> DNA
<213> Homo sapiens
<400> 2385
gaatteggee aaagaggeet attgtgattt aactagtgag aattgtatte aagtgaacte 60
tgtttttctg aaaataaaaa tataaacaat gagattggca ctactcgag
<210> 2386
<211> 148
<212> DNA
<213> Homo sapiens
<400> 2386
gaattcggcc aaagaggcct agatgtetee ettgactett etgtgtatat gtgtgaatat 60
gtgtgtatat gtgtgtgtgt gtgtgtgtat gaagetgget ttatcagaat tactgggtga 120
tggtatggaa gaaagaaagg ctctcgag
<210> 2387
<211> 113
<212> DNA
<213> Homo sapiens
<400> 2387
gaatteggee aaagaggeet atgaaaatga ttetgeteee tttgaaagea tteattttge 60
tagaactgtt agacacattg cagtatgctg tattgaaagt agaaatactc gag
<210> 2388
<211> 189
<212> DNA
<213> Homo sapiens
<400> 2388
gaatteggee aaagaggeet aatggagaee aagetgaage caetgagaaa atgggagaag 60
ttgcagatga cgtccagcga gcgcaggaag atcatgtgct cagtgacatt ccacgtcatt 120
gecateacat gtgtggtetg gteettgtat gtgeteattg accgtactge tgaggagaag 180
gggctcgag
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<210> 2389
<211> 158
<212> DNA
<213> Homo sapiens
<400> 2389
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ttacagttaa atattagtta aaggtcacat gatgtgccac ataaacattt tgggcactat 120
gtaactttta aacttggtct attacatgcg ggctcgag
<210> 2390
<211> 129
<212> DNA
<213> Homo sapiens
<400> 2390
gaatteggee aaagaggeet aaattaattt atgaatetee tagaatgetg tetggeaatg 60
tgtttggttt tttcctgttt ggcaaaggtg tgtttttgtt ttttagattc cagtgaacca 120
atactcgag
<210> 2391
<211> 206
<212> DNA
<213> Homo sapiens
<400> 2391
gaatteggee aaagaggeet agaaacattt ttgeetggat gagtteettg ttggtaacte 60
teactgtgtc tetagtgaca etagagatet etagegttea eetgacttgg etgaattggt 120^{\circ}
ggtgccaggc agagtccctg gcagtagagc cacctcagat gagcctggta gctgcaccta 180
cctccccttc aactaacaag ctcgag
<210> 2392
<211> 102
<212> DNA
<213> Homo sapiens
gaattcggcc aaagaggcct aaatgtttta tattttataa atcatctttt gactctgtat 60
ttaaattcta tgatactgaa aataaaggca ttcatcctcg ag
<210> 2393
<211> 133
<212> DNA
<213> Homo sapiens
<400> 2393
gaatteggee aaagaggeet aegagatgaa gtetttgaat acattatatt eegtgggagt 60
gacattaaag accttactgt ttgtgagcca ccaaaaccac agtgttcttt gcctcaagac 120
ccagcaactc gag
                                                                   133
<210> 2394
<211> 122
<212> DNA
<213> Homo sapiens
<400> 2394
gaattcggcc aaagaggcct aggagtgggg gtgaggtaaa atgggaaatt ggatatgaaa 60
gaaatacaca cctacatgga aatgtttcaa cgtgcgcaag cgttgcgaca gcgggactcg 120
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ag
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<210> 2395
<211> 109
<212> DNA
<213> Homo sapiens
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tgatettaac aatattttgt aaaatgatge ttecceette geectegag
<210> 2396
<211> 135
<212> DNA
<213> Homo sapiens
<400> 2396
gaattcggcc aaagaggcct agaaaatgaa atgaaattga agaatatttt gcattatcta 60
gtottatoac tgccattota tgacacagga aataccattt gggaaactga gtttctattt 120
gaaaaaggac tcgag
<210> 2397
<211> 102
<212> DNA
<213> Homo sapiens
<400> 2397 °
gaattcggcc aaagaggcct agtctgtttg aagataagag gaaaagtaga acttaaaact 60
                                                                   102
ccaaactaga gtacgtaaca ttgaaaaatg aggctgctcg ag
<210> 2398
<211> 105
<212> DNA
<213> Homo sapiens
<400> 2398
gaattcggcc aaagaggcct attaaaatat agtaacatcc attttttcc cttgaaagtg 60
attetettat aaaaaatgaa agtggagttt aaggtatate tegag
<210> 2399
<211> 163
<212> DNA
<213> Homo sapiens
<400> 2399
gaattcggcc aaagaggcct aaaaaactat gcatgttcta ttgttttcct ttttgattcc 60
ctttctttta ttatccccag taggagtgac ttgtaattct catatgttag aaaggcaggt 120
ctcctggttg aagaaaagat ccacccaagc aagtcagctc gag
<210> 2400
<211> 99
<212> DNA
<213> Homo sapiens
<400> 2400
gaattcggcc aaagaggcct aagcatcagt ttgttgtttt taaaaggata tttaagtgag 60
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cattttctag ttcatatgaa aataaccata gtactcgag
<210> 2401
<211> 152
<212> DNA
<213> Homo sapiens
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<400> 2401
gaatteggee aaagaggeet atattgaaca tgttetteaa gtatacatgg aataactttt 60
tgcatacaca agtggaaatt tgtattgcac tgattcttgc aagtcctttt gaaaacacag 120
aaaatgccac aattaccgat ccaagactcg ag
<210> 2402
<211> 167
<212> DNA
<213> Homo sapiens
<400> 2402
gaattcggcc aaagaggcct actctaactt ccgtaaggac acggatgctt aattacaaaa 60
ggttttgccc ctgtagtgac cgggcagcaa tgttatctgt ccttcattct tgcatgtttt 120
tggaaattgc ttttgctttt acttttggtc gtcaaggcaa tctcgag
<210> 2403
<211> 162
<212> DNA
<213> Homo sapiens
<400> 2403
gaatteggee aaagaggeet agaaaaatat ttagttgtet cattacetet tetaaacaca 60
aaccagetga tgtattttaa tetgtttetg ttetatettg taattaattt ggtgggttet 120
acttgtttta acataaataa agagtatgca ccacgtctcg ag
<210> 2404
<211> 103
<212> DNA
<213> Homo sapiens
<400> 2404
gaatteggee aaagaggeet ageaaaatat etteeaaaca geagaaaata acataettet 60
gggaatgaaa ctacagtgta ttcatatgac ccatatactc gag
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<210> 2405
<211> 125
<212> DNA
<213> Homo sapiens
<400> 2405
gaattcggcc aaagaggcct aagagaatgg ccatgattcc agtagttaat gatcttctag 60
gttttttgtt tgtttgtttt tgtttttttt ttgagacgga gtctcaggtg acceacccc 120
tcgag
<210> 2406
<211> 113
<212> DNA
<213> Homo sapiens
<400> 2406
gaattoggcc aaagaggcct actcatactt gaaagtttga ctcggtcttt tccttccaac 60
agttataaat ctgtgaaatg aaagtctttg tttccttaaa gggatttctc gag
<210> 2407
<211> 207
<212> DNA
<213> Homo sapiens
<400> 2407
gaattcggcc aaagaggcct agcaaaagtc ctgtgtgttt tttgtaattt tgtctgtggt 60
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ctgatctctc ttcaccagac aaaagaaaag tacacaattt ctaaaatggt ccatttttta 120
ttgatgagta tttatactgc cttctgcctt ccttctttc ctccctattt aaaaactttt 180
ccgtttgtaa aaaccacaac actcgag
<210> 2408
<211> 105
<212> DNA
<213> Homo sapiens
<400> 2408
gaattcggcc aaagaggcct acaaagcact tgaaagaaga aactattcaa ataattacca 60
aggcatcaca tgagcatgaa gataaaagtc ctgaaactac tcgag
<210> 2409
<211> 194
<212> DNA
<213> Homo sapiens
<400> 2409
gaatteggee aaaaggeeta taccaaatag egaattagee atgggaaaaa gtagcaaata 60
gagetgteca atgteettag getgttttee aaatgagata eeaaaageta gtteteeate 180
gggtgccgct cgag
                                                               194
<210> 2410
<211> 114
<212> DNA
<213> Homo sapiens
<400> 2410
gaattcggcc aaagaggcct agagtatttt ctatattttg aagctgttag atgcatagtc 60
atgatttttg gtggaatgtt ttatcaattt ttgaaaattg cctttgegct cgag
<210> 2411
<211> 268
<212> DNA
<213> Homo sapiens
<400> 2411
gaatteggee aaagaggeet aagaagtget tatagaaaag atggetaata ttaacetaaa 60
agaaataacc ttaatagtag gtgtggttac tgcctgctat tggaacagcc tcttttgtgg 120
ttttgttttt gatgatgttt cagcaatact ggataacaaa gacttgcatc catctacacc 180
tttaaaaaact ttatttcaaa atgacttctg gggaacccct atgtctgagg agagaagcca 240
caagtettac cgtccccacc acctcgag
<210> 2412
<211> 126
<212> DNA
<213> Homo sapiens
<400> 2412
gaatteggee aaagaggeet aggaaaatgt tggggegett gageegeett tgeagtegga 60
ggggcagcct aggaggagcc cagggaggcg gtggcttctc tccaggtaca tagaaggccg 120
ctcgag
<210> 2413
<211> 260
<212> DNA
<213> Homo sapiens
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<400> 2413
gaatteggee aaagaggeet acgaggatet tggtttgaca aactagcaat ttccaaacgt 60
tectgettag coatteettt cettettte tettettta tetettett cettetetga 120
ateteatgea ggattteacg ttgeteetge tettettee gettggeete caacagegee 180
tegagaagtg gggaaactca aeggtgtacg agtggaggae agggacagag ceetetgtgg 240
tggaacgacc ccacctcgag
<210> 2414
<211> 663
<212> DNA
<213> Homo sapiens
<400> 2414
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cgcctaaggg ctttattcat gaagcaaatc tatctgcaag aatatagagc aaagcaatcc 120
aagatgcttg gcaagaaagt gacagatacc tgggctgctg cactccgcat tcagaaggtt 180
tggcgacgtt tccatcaacg taaggaaact gaaaaactga gagaagagga gatgatcttc 240
ctgggtatga atccacctcc tctctttaat gaagtcagtg ctacagtaat ccaggctgaa 300
aaggtggacc gcctgcggaa tgaggtgcag ataaagcatg aagaggacta cagggaagcc 360
ctggttacca tcaagaatga cctaaagttg atagaaggcg tggatatcaa ggagaacctt 420
caagaccaga teeggeattg gtteategaa tgeagaaatt taacegggac attteetgac 480
taccetgacg ttgaagaagg agggtcaget attattttt etgacaagac catacaacag 540
gttattgagg atatcatagc aaaccaagag gaagaagaaa aaaaacaaaa agaagaagaa 600
gaaaaaggaa aaacaaccca agaaagccaa aaaacaaaag aaaggaacaa aggagtactc 660
<210> 2415
<211> 585
<212> DNA
<213> Homo sapiens
<400> 2415
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ageogagatt afgecactge actocageet tggcgacaga gtgagactet gteteaaaga 120
aaaaaaaaa aagagteeta tettgegaaa cagageaagg teatggetee agtggeagaa 180
gaaaggacgg tcagtggcag gaaataggtg tgaacggaac agtcaccagg gcacccagac 240
acceccaggg aaatggcagg tgcagettta tttecegeat tatggagaga gggaaaaaaa 300
gtgtcagtct cttattaggg agagtaatta catcetttat aactgtgtac ctaattagtt 360
tgtttctaac catcctcatc atgaacaaac acattaaata attggagaga agaggagata 420
agaaagagaa ttaacatttg agaagagact accatgtgtc agacaagcac tgtgctcggc 480
atcettetgt atgttagete tetaaceete aetaaaacaa acacacaaac caaagatgat 540
tcagtagttg atattttatc agctacatct cccagtgcac tcgag
<210> 2416
<211> 799
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (770)
<400> 2416
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ttttaatttt aaattetget eetetgaace atagaggttt gteagaggta eetettggee 120
tgccaggagg caaagtgaaa gggagcagag aaggatggga ttgagggtag gtctctggat 180
cocctacttt totgaaacag cagotttgat tocatgtttt tatatatoca tottotgtat 240
gtgatttcac ttgaagaaag ggtctcaaag agtttgaaaa ccattgattg attatgccac 300
cetttattgt catcateate ateagaceat cacatetaat aegaatatat gtaaaaettt 360
ctatactaag tgcttaactg tgaaacctat gtgcttttcc ttgaatactg catttaaaat 420
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aatcagtaaa cacttaaaag tgtatctgta cctttctgcc aatatttctg tagttttgta 480
aattgtggtt tgtgttgcgt gcttatttat tgtcttgtgc ttcaagtctt ttcaggagga 540
catgggctaa atacaatttt taaagctatc tcaaaatgtt ttggaaaatt tgagggtaag 600
ataggttttg aaaaggtctg aaaaatataa tagagtctta aaaatggagt aattgcgtgt 660
tgtaacatga aagaaggcaa tgtctggaaa aattcaaaaa tagcaattta gcggaaatag 720
gaagagaga aggtaagagt gttagggata aatgctcaaa agatttctcn gttttttaa 780
aatatgcaac tttctcgag
<210> 2417
<211> 237
<212> DNA
<213> Homo sapiens
<400> 2417
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atttaactag agacacttag gaagcatcca ggcttagata tcaggtgtgc agttgtgcgt 120
gtaacagggg atcttgcagc agaaatcaga cttcaggcta tacatttgga ggtcttcatc 180
acgtaggtag tatttaaagt taggagtgtg agcaagatga ggagggggag tctcgag
<210> 2418
<211> 480
<212> DNA
<213> Homo sapiens
<400> 2418
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atcaagaagg cactcatccg aaagacagaa atgtagaaaa actacaagtc ctgttaaatt 120
gcatgacaga gatttactat cagttcaaaa aagacaaagc agaacgtaga ttagcttata 180
atgaagaaca aatccacaaa tttgataagc aaaaactgta ttaccatgcc acaaaagcta 240
tgacgcactt tacagatgaa tgtgttaaaa agtatgaggc atttttgaat aagtcagaag 300
aatggataag aaagatgett catettagga aacagttatt ategetgaet aateagtgtt 360
tigatatiga agaagaagta tcaaaatatc aagaatatac taatgagtta caagaaactc 420
tycctcagaa aatgtttaca gcttccagtg gaatcaaaca taccatgacc ccaactcgag 480
<210> 2419
<211> 188
<212> DNA
<213> Homo sapiens
<400> 2419
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actorggata aattatttta ttagtttott atatgtottt agaaagtttt tatattotta 120
acctttttgg ttttttattt ctgttttttt tagagacacg gtctcactct gttgtccagg 180
ctctcgag
                                                                   188
<210> 2420
<211> 205
<212> DNA
<213> Homo sapiens
<400> 2420
gaattegegg cegegtegae tgttgagtte ettatatagt etaggtatta acccettaga 60
tgcatagttt gcaaatattg tcttccattc tgtaacttgc ctcttcattt tgttgactgt 120
ctcctttgct gtgaagaagc tttttaattt gatgcaatcc tgtttgtcta tttttgcttt 180
                                                                   205
ggttgcctgt gcccagtcgc tcgag
<210> 2421
<211> 266
<212> DNA
<213> Homo sapiens
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<400> 2421
gaattegegg cegegtegae eecaggtaga geaagaagat ggtgtttetg eeceteaaat 60
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ctccttcatg gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc 180
cttggaataa aatacgactt cctgagtacg tcatcccagt tcattatgat ctcttgatcc 240
atgcaaacct taccacgcag ctcgag
<210> 2422
<211> 199
<212> DNA
<213> Homo sapiens
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categactga tteatecatt cagtatetag teetgtatet atetgteeat ceaaetteea 120
atceacteac catttateag teaagatget ecceccacce aataactace catteacage 180
ttggaaccga aagctcgag
<210> 2423
<211> 247
<212> DNA
<213> Homo sapiens
<400> 2423
gaattegegg cegegtegae acagtacaca gaegaceaea ceeteageat ettgteeaga 60
aagcaattca gttaatcagg tagaagatat ggaaatagaa acctcagaag ttaagaaagt 120
tacttcatca cctattactt ctgaagagga atctaatctc agtaatgact ttattgatga 180
aaatggtctg cccatcaaca aaaatgaaaa tgtcaatgga gaatctaaaa gaaaaaccgt 240
actcgag
<210> 2424
<211> 353
<212> DNA
<213> Homo sapiens
<400> 2424
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ctttattcgt cctttctcaa agatgggata ctgatcagaa ttgctctgta tatgcttggg 120
actggatgga aagactttgg agcagctgtg gggggtgggg ggacaccgac aaccaaacag 180
acgtgctggc tccagtcctg tttttacttt caaaaaccaa caagcccgac agtggagcct 240
gtcccctccc aggagggtgc tcatggcccc actcacctca tcaccccacg gaaacctttg 300
tgtcttgccc tggaagacac ccgaattctt tgtacattga catgcccctc gag
<210> 2425
<211> 249
<212> DNA
<213> Homo sapiens
<400> 2425
gaattcgcgg ccgcgtcgac ctctgttgaa aggcaacaga ttcagtaata cagtgctatt 60
ttcaagtgta gcatcattct ttctagtttc tgcctacttt ttcctcaatc ccttcaggtc 120
ttetetgtgc ctactggttt atcagtcatc caattatttg ggcaaagttt atacctagaa 180
tttttgtttc acccctctgg ttctctgact gccatgtttt tcccatttaa atttctagct 240
gtcctcgag
<210> 2426
<211> 195
<212> DNA
<213> Homo sapiens
```

```
<400> 2426
 gaattegegg cegegtegae gittititit gitetaagaa agittateet giaittetat 60
ttagaagttt tagagtgtta gcttttagat taaaaaatgg tttacttttt tattttgaga 120
 tggagtttca ctcttgttgc ccaggctgga gtgcaatggt gcagtctcgg ctcaccacaa 180
 ccttcatctc tcgag
                                                                 195
<210> 2427
<211> 175
 <212> DNA
 <213> Homo sapiens
<400> 2427
gaattcgcgg ccgcgtcgac cctaaaccgt cgatcgtagt tcaaattgga ttgtggttta 60
tctgggccca agccactgga tccagatgaa atgttctttc caggcagcgc tcgag
<210> 2428
<211> 168
<212> DNA
<213> Homo sapiens
<400> 2428
gaattcgcgg ccgcgtcgac taaatattag gagttaaaaa aataaaaaca atttgtcttc 60
aacattgata cgtgttatat teteateatg etagttgatg tttttaaeta tggtacaata 120
catacgattt ttgtgttgac ttatataaca tttaacccag gtctcgag
                                                                168
<210> 2429
<211> 224
<212> DNA
<213> Homo sapiens
<400> 2429
gaattcgcgg ccgcgtcgac cttaataaac aatagtatag taaaaacata atttttatat 60
geactggaaa ccaaaaaatg tgtgtaactc actttattgc gatattcact ttattgcaat 120
attcacttta ttgcagtgat ctggaaccaa acctgcaata tctgcatggt atgcctatat 180
atgtatgtct agatttaact tatgaaatgc caggttctct cgag
<210> 2430
<211> 315
<212> DNA
<213> Homo sapiens
<400> 2430
gaattegegg cegegtegae catatttta aaagtettte teetacetae ateetettet 60
attetattat ecceacatee agetttatta attacttett tetteette tggttettet 120
tttgtagaga tgaggtctcg ctatgtacaa gcatgcacca ttgcacccgg cttagtttta 180
ttagtttcta atatatcctt tcagtgtttc tttctgcaaa tccaaataca tagtcttatt 240
tccccctttc ttacacaaaa agaagcaaac tatacatgct gttttgtcgt tttgctttat 300
tcacacaatc tcgag
<210> 2431
<211> 214
<212> DNA
<213> Homo sapiens
<400> 2431
gaattegegg cegegtegae aaaaataaaa tattttaaaa ageaggatge aatattttat 60
geacactatg tgtatttatt tgeecatact ettteagetg gaagetatag aaacccaaat 120
caaattgact tetgeaaaaa taacaaaaat caagaaattt ettggeteac aggaacetgt 180
aaagcctgga ggaaagggtc tacaacagct cgag
```

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<210> 2432
<211> 193
<212> DNA
<213> Homo sapiens
<400> 2432
gaattegegg eegegtegae gaagaaattt aggagettge cacacceagt cateteaaca 60
acatececaa atgeattett accatgetgg agateceaaa gtteteagag getettgtgt 120
tagaaacctg ggaccaagac caaatattaa aacaaaagat gttcctgtca catctatcac 180
tgagggtctc gag
<210> 2433
<211> 179
<212> DNA
<213> Homo sapiens
<400> 2433
gaattcgcgg ccgcgtcgac taaaaaaaaa aaagtacaat ttggtgcact ttggcatatc 60
ttaatateca tgaaaceate aagattatga ttatateeat cateeetaga agtttettee 120
tactgetttg tattecettt ettaceetee tettgtatae ataceecee ateetegag 179
<210> 2434
<211> 235
<212> DNA
<213> Homo sapiens
<400> 2434
gaattegegg eegegtegae ettttetaa agaataattt gttgtgggga eeteeetege 60
attataggta agaattgatt gtgttggagt ttttgctgtg ttttatacca cttttctacc 120
tgtgtttata gtgagagagt tggttctgct tttgttcagt ttgccacgtt gctagaacca 180
gaagtcagtt tttttcctt tgaatttgtt ttgaaaattt gtgatgcagc tcgag
<210> 2435
<211> 373
<212> DNA
<213> Homo sapiens
<400> 2435
gaattegegg eegegtegae egaaatggeg eeeteeggga gtettgeagt teeeetggea 60
gtcctggtgc tgttgctttg gggtgctccc tggacgcacg ggcggcggag caacgttcgc 120
gtcatcacgg acgagaactg gagagaactg ctggaaggag actggatgat agaattttat 180
geoeegtggt geeetgettg teaaaatett caaceggaat gggaaagttt tgetgaatgg 240
ggagaagatc ttgaggttaa tattgcgaaa gtagatgtca cagagcagcc aggactgagt 300
ggacggttta tcataactgc tcttcctact atttatcatt gtaaagatgg tgaatttagg 360
cgctatcctc gag
<210> 2436
<211> 155
<212> DNA
<213> Homo sapiens
<400> 2436
gaattcgcgg ccgcgtcgac tcaggctaag cctcagcttt gctctttgtt ttttatggta 60
taaggacagt cctgtgtgaa ggcgcgtacc tcgag
<210> 2437
<211> 206
<212> DNA
<213> Homo sapiens
```

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<400> 2437
gaattegegg eegegtegae gagataettt eetaaaaagg aaaaataaaa aacaaaatgg 60
tgccactttg ggttgaaget actttgttag gettgaatte atttatatgt ettttgatte 120
ttaaaaaaac aaaaaacatt ccattagaag caccagtttt tttgctcaga ctttgtggat 180
cagactetae acteaacaca etegag
<210> 2438
<211> 231
<212> DNA
<213> Homo sapiens
<400> 2438
gaattegegg eegegtegae egattgaatt etagaeetgg aetetaacae ttgttaaact 60
tateceattt tgettatett aggteeceat ttatttatae agtatatttt getgaacetg 120
tttttttatt ttgatttttt cttttttgaa acagaggete tetetgttge ccaggetgga 180
gtgcagtggc atgacctcag ctcactacaa cctccgcctc ccgcactcga g
<210> 2439
<211> 247
<212> DNA
<213> Homo sapiens
<400> 2439
gaattegegg cegegtegae attttatget teteettttt teecegeaac ttgaactgtg 60
actotttcag atatttctta aatotgtatg agtoattttt taagottagg gatttgatat 120
gtattaatgt cccctttgtc ttctgtagat tttagcattt tattacctct taagaaactc 180
tgggcccaga ctttcagtca tatttcttat tcctatggta cagttctcac ttaaaggctt 240
actcgag
                                                                   247 .
<210> 2440
<211> 195
<212> DNA
<213> Homo sapiens
<400> 2440
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacccac ctactatact 60
atgagtetgt atttgtgttg tttttttttt ettegaaaac catetgtaac cattgttttt 120
atcattttat tttattttt aagttttatt tatttttttg agacagggtc ttgctctgtt 180
                                                                   195
accceggete tegag
<210> 2441
<211> 222
<212> DNA
<213> Homo sapiens
<400> 2441
gaattcgcgg ccgcgtcgac gagggatttg gggtggtgag tgggaaggct gtgtctccgg 60
aagaagaaat atacgtcccc acctcactct aattaaacct gcttttccag cgcgataaat 120
attcaagata acttttggtt tgcatttcaa taacaaagtc ttgcaccact atcttcagtt 180
                                                                   222
taaaaaaaa gtttaatgtt tgctctacgt ttctgcctcg ag
<210> 2442
<211> 266
<212> DNA
<213> Homo sapiens
<400> 2442
gaattcgcgg ccgcgtcgac cacagtgaaa catatacata agcctataaa aaaagatttg 60
tgcaatttga aagcctgtta attttttatg tagacatacc tacacacgaa agggttaaat 120
teacageett actageteet tgetteeagt attteaattg gteteeteec etcattatta 180
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ttattactac tagtactatt atttttgcac atagttaact gecetteaat atgattetta 240
aaaagtgctg tttctgtggt ctcgag
<210> 2443
<211> 220
<212> DNA
<213> Homo sapiens
<400> 2443
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tetgatttet gtetggtggg tetateeatt tetggeeagt tgeaetetta aggetggtgg 120
gttgtccgtt gtcaactcag caacctcca tttcccttct caaagcagaa agagaaacca 180
ggttctatgt ttctccagat cctttcccat atctctcgag
                                                                  220
<210> 2444
<211> 265
<212> DNA
<213> Homo sapiens
<400> 2444
gaattegegg cegegtegae caeageteta geacatgtat tgttaaaagt ggagttaeta 60
agttttaggg tacatgtatt ttccactgta ctagataaca cccaattgat ttcacagaaa 120
taatttatat atcaattttt tattaagtcc ctttgtcatg tgttacaagc ttttttttt 180
tttagtttgt cttttggctt tgtttatggt gcttaaaaat tgtaaccaaa ttcaccaatt 240
                                                                   265
aaaaaaaatt gtggccagac tcgag
<210> 2445
<211> 130
<212> DNA
<213> Homo sapiens
<400> 2445
gaattcgcgg ccgcgtcgac ggtgtagtgt atagtataac gagaaaggag tgtttatcag 60
aattttttta catacaggta ttatacctga ggcaataatg aaatggcatc taacagctcc 120
ccttctcgag
                                                                  130
<210> 2446
<211> 218
<212> DNA
<213> Homo sapiens
<400> 2446
gaattegegg cegegtegae geetteeece tgtgaattta tatgaagaae tteacagtgg 60
caggictaaa cacaacagca gaccattaga giagatctaa caggacaaaa gaaaatacaa 120
agagaagcaa gcccagtggt aacagaaaca aggaaaaaac accaggaatg ctgtttacct 180
tgagcttttt aaagaacttt tatttccatt tactcgag
<210> 2447
<211> 292
<212> DNA
<213> Homo sapiens
<400> 2447
gaattegegg cegegtegae egtegattga ttetagaeet geetteteat tetteatttt 60
cgataagcaa tetaggtett gaattgette atgtgtttta atgttggtaa acatteetgt 120
aaacctgatt atccaactgt tttctatgga tttctatctg tatgtctggg ttgttttttg 180
tttatttgat tttttgagac agggtettge tetgeegete agggtggagt acagtggcat 240
gatettgget cactgeaace teegeeteee gggeteaage aatecaeteg ag
<210> 2448
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585

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<211> 155
<212> DNA
<213> Homo sapiens
<400> 2448
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aaggaataga agcattcagg taatagtaca ttcttcttgg aagcctcagg atgcaggatt 120
tgcctgacat gaagetgccc atcagtacac tcgag
<210> 2449
<211> 452
<212> DNA
<213> Homo sapiens
<400> 2449
qaattegegg eegegtegae atggacacaa gtteagtggg aggattagaa ttgactgate 60
agacteetgt tttattaggg agtaeggeea tggeaactag teteacgaat gtaggaaact 120
catttagtgg tccagctaat cctttagtgt ctagatctaa taagtttcag aactcgtcag 180
tggaagatga tgatgatgtt gtttttatcg aacctgtaca acctccccca ccttctgtac 240
cagtggtagc tgatcaaaga accataacat ttacatcatc aaaaaatgaa gaactacaag 300
gaaatgattc caaaattact ccttcctcaa aagagttggc atctcagaag ggaagtgtaa 360
gtgagacaat tgtcattgat gatgaagagg acatggaaac aaatcaaggg caagagaaaa 420
attectecaa ttttattgaa cgaaaceteg ag
<210> 2450
<211> 100
<212> DNA
<213> Homo sapiens
<400> 2450
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attctataag agtagatcat tatgtccccc atccctcgag
<210> 2451
<211> 134
<212> DNA
<213> Homo sapiens
<400> 2451
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgcctcga gtgttggtac 60
tgtatagaga gcagagtagt aatcaccaca ctgggtatcc aatggcaatg aggtcatttt 120
cccagttcct cgag
<210> 2452
<211> 229
<212> DNA
<213> Homo sapiens
<400> 2452
gaattcgcgg ccgcgtcgac aaatgatatt aactggttac atgaatgggc ttaaaagtct 60
aatggtttac attatttct ttaagaagtc tatttttat ttatttattt ttatttattt 120
gagaccetgt etcaataata ataataataa taatattatt ataataggtg eetatgeaca 180
                                                                   229
gggaaccagg gaagactttg aagaggaagt acttacacgt agactcgag
<210> 2453
<211> 237
<212> DNA
<213> Homo sapiens
<400> 2453
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gaattcgcgg ccgcgtcgac tctgtatcaa ggtatcaaac aagacctaag agattgaagg 60
tectagtggt ggtattaaat ttttgcatat aaattaatga eeatgcaatg tttcacagee 120
atttttctct tcctttctaa cagccttgtt agatactgta tttttgagaa tatagagaca 180
gaaagagaag ttaataaccc attcagagtc tggtctaaaa tccaaggctc cctcgag
<210> 2454
<211> 150
<212> DNA
<213> Homo sapiens
<400> 2454
gaattegegg eegegtegae ttetgettta ttttgtttta tatgacattg atgatgteea 60
totatgttgg cocatataat tottatcaat tattttaaat gotgtttagc attgtactat 120
ataaaaatat caaaacacag ctccctcgag
<210> 2455
<211> 259
<212> DNA
<213> Homo sapiens
<400> 2455
gaattegegg eegegtegae acaagaaata teagteattg gtttateeag accagtettt 60
catttccagt gttataggcc aaagcaaaca gacttcccaa catcaaatag tctcacgagc 120
tgaaatggca ttccttgctt gtaggcatgt ggtagtaaca ctcctaggtg aaagaattgg 180
atcaagggtg acaatggcgg ccaggaaatg tetattatge atggggtgtt teettettet 240
tgctgccgtc ttcctcgag
<210> 2456
<211> 202
<212> DNA
<213> Homo sapiens
<400> 2456
gaattegegg eegegtegae tggggaattt eettaattet teeagteett ttattgagtt 60
ttcatttctg ttcttgtatt ttaaacttct aatgagetet tttteetetg aatgtttgtt 120
gtggatatta atgattttta gaacatcttt cttcttgttg catactgttt atttggcaag 180
ttgcttcccc caacccctcg ag
<210> 2457
<211> 269
<212> DNA
<213> Homo sapiens
<400> 2457
gaattegegg eegegtegae gaaaattata gaaaateeaa atateetgge tggggtgaga 60
gtctgtaagc tagccagaga aaacagctaa ggctaagaaa ataaaatata ggagaaaatt 120
ctagaaaatc cagatatcct ggctggggtg agagtctgta agctagccag agaaaagagc 180
tgaggcgaag acaataaaat ataggagaaa attctagaaa aatgaaaatt ggtttattgt 240
cccagatctg taccettete cccctcgag
<210> 2458
<211> 233
<212> DNA
<213> Homo sapiens
<400> 2458
gaattegegg cegegtegae cactgatget gaagtactat gageettegg aacttgtgga 60
gagactacaa agttttggtt gttatggtcc ctttagttgg gctcatacat ttggggtggt 120
acagaatcaa aagcagccct gttttccaaa tacctaaaaa cgacgacatt cctgagcaag 180
atagtotggg actttcaaat cttcagaaga gccaaatcca gggacgactc gag
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<210> 2459
<211> 283
<212> DNA
<213> Homo sapiens
<400> 2459
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tctacttcta cttcctctcc ccgacctttt tctgcccagt gtaggtgtat tcttaaattc 120
agacagggga agattettte acatateact cagttacete ceaatetggg ggagttttte 180
ttacaacttg ataccagata ccattaattt tacattcctg aataaaggcc tagtacccac 240
gcatatttca accatgcata tatcaagttc aaccgcgctc gag
<210> 2460
<211> 274
<212> DNA
<213> Homo sapiens
<400> 2460
gaattcgcgg ccgcgtcgac tatataaggg ccaaaagtac ttaactttta aaagttagca 60
atataatoto ttottgotta taaggtoaag tottttgtga tagcottact agcaataata 120
gaaaattgaa aaaaagcatt ttagttcccg tgtttaaaaa tatttcttgt aagtgttggt 180
attgcaaatg aattattacc aaatgttaat aatctattat gtcttgtttt ttaaagtgaa 240
                                                                  274
tgaattttta gcttttgagg gcccccatct cgag
<210> 2461
<211> 159
<212> DNA
<213> Homo sapiens
<400> 2461
gaattcgcgg ccgcgtcgac ttttgtctgg gttgtcacat ttatgtgtgt agggttgtta 60
cgttatectt ttgagtetge agagtetatg ttgetatece etattttatt ceeggtatta 120
ggtatttgta tectetetet tttttgtgtt agtetegag
<210> 2462
<211> 196
<212> DNA
<213> Homo sapiens
<400> 2462
gaattegegg cegegtegae aaaagttttt aggeeagtge aaattatgea gtagaacttg 60
tgttgcaaaa ggaattataa cccatacttt aaaaatgctt aatccctcat attcaatttc 120
atcaagcott gtatacttct gottaaatgt aattcaatcc ttggttgtta tggcaaacag 180
aaacccaacg ctcgag
                                                                   196
<210> 2463
<211> 266
<212> DNA
<213> Homo sapiens
<400> 2463
gaattcgcgg ccgcgtcgac agactgcgaa ggagagttat ttctgattca aattttttat 60
ttctggattt tcccatttgg ctctttttaa tagtttctgt gtattcactg aagttcccca 120
cetetecatg catgttgtcc acatttteca gtaaattett tageattttt atcattattg 180
tgaagteece gtetaateta ttatetggae agtetetgag tatgttteea ttgaetgttt 240
cgtctcatgt agatcacgta ctcgag
<210> 2464
<211> 619
<212> DNA
```

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<213> Homo sapiens
<400> 2464
gaattcgegg ccgcgtcgac tgatggaact acatgaaact atggcatcct tacagagtcg 60
cctgcggaga gcagagctac agcgaatgga agcccagggt gagcgagagt tacttcaggc 120
agccaaggag aacctgacag cccaggtgga acacctgcaa gcagctgtcg tagaagccag 180
ggctcaggca agtgctgctg gcatcctgga agaagacctg agaacggctc gctcagcact 240
gaagetgaaa aatgaggaag tagagagtga gegtgagaga geeeaggete tgeaagagea 300
gggcgaactg aaggtggccc aagggaaggc tctgcaagag aatttggccc tcctgaccca 360
gaccetaget gaaagagaag aggaggtgga gactetgegg ggacaaatee aggaactgga 420
gaagcaacgg gaaatgcaga aggctgcttt ggaattgctg tctctggacc tgaagaagag 480
gaaccaagag gtagatetge agcaagaaca gatteaggag etagagaagt gtaggtetgt 540
tttagagcat ctgcccatgg ccgtccagga gcgagagcag aagctgactg tgcagaggga 600
gcagatcaga gagctcgag
<210> 2465
<211> 202
<212> DNA
<213> Homo sapiens
<220>
<221> unsure
<222> (44)
<400> 2465
gaattegegg eegegtegae agaagtaaaa gggtgttaag ettnttttaa atttttaaaa 60
tatgaaggaa atttttttt ttttaaaggc agggteteat ttgttaccca ggetetggag 120
tgcagtggtg ctattacagc tcactgcacc cttgacctgc caggetcaag tgatceteet 180
gcctcagete eccaceeteg ag
<210> 2466
<211> 263
<212> DNA
<213> Homo sapiens
<400> 2466
gaattegegg eegegtegae eetaaacegt egattgaatt etagaeetge eteteagtat 60
cccccggaag tcattattat catttgccat ctgaatccat tataccctgt ttactttcaa 120
tttttatgtt ttttactttt atatttttt ggagacagta tctcactctg ttgcccagac 180
tggaatgcag tggcatgatc atageteeet geageettga aetettggge teaagtaate 240
cttccactcc aggccccctc gag
                                                                   263
<210> 2467
<211> 249
<212> DNA
<213> Homo sapiens
<400> 2467
gaattegegg cegegtegae egattgaatt etagaeetge etegagtget ceaacaacea 60
tragttatgg cotatotgct tttotcotte etgtattttt tttttcttga gacaggatct 120
cactttgtca cccatgctgg agtgcagtgg tgtgatcact gcttactgtg tcccttcaac 180
ctcccgggct caagagatcc tcccatctta gctttccaag tagctaggac tacagacgca 240
cacctcgag
<210> 2468
<211> 240
<212> DNA
<213> Homo sapiens
<400> 2468
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gaattcgcgg ccgcgtcgac aacggactga aagacaaatt aatcttggtg aaaggatttt 60
teatetetta tttetatttg eeagtgttag teagtgttet getggettag attattacet 120
ttttetggtt cettactgtg ttttattetg atgggteeta gaaateete teetgaceae 180
ttgtcagaat cagaaagtga ggaagaagaa aatattagtt acctaaatga gagtctcgag 240
<210> 2469
<211> 246
<212> DNA
<213> Homo sapiens
<400> 2469
gaattcgcgg ccgcgtcgac ggacataagg ggaacctagg tgaaggatag atgggaatct 60
tttgcctatt ttctgtaact ttaaaatttt ttcacaataa aaatgaagag agtatgtttg 120
cttagtattg tgtatacact gcaacagttt agtattcaag aatatataaa atccccactt 180
agccaacctt ttcaggatgt gcccgccctg cccaatacac ttttatattc tagccaaaaa 240
ctcgag
<210> 2470
<211> 224
<212> DNA
<213> Homo sapiens
<400> 2470
gaattegegg cegegtegae attatettta atatatttga cattgaacat ttgtttgtta 60
aaccaccaaa aagtttcaaa caagagaaat ctgttttgac tgttggaagg cagagacagc 120
acaagattag cctgttctgc tgaagtcata gttcaacctt aatgaacgtc aaggaataaa 180
agactgtaca tatgaggtgt gtagtattag cgtgcttgct cgag
<210> 2471
<211> 257
<212> DNA
<213> Homo sapiens
<400> 2471
gaattcgcgg ccgcgtcgac aaattatttt ttatttcaat cattttaaat acattccttc 60
tactggcatt cacetgttag attecegece ecceecege ceetgetttt caactaatat 120
agtteetact taaaagacag gatacattgt ttteetetac etacttattt teagagtgag 180
gagttattgt tagaagtatt cactcatctt taatgaaatt gttttgttca tcagattatt 240
tcaggagage cetegag
<210> 2472
<211> 231
<212> DNA
<213> Homo sapiens
<400> 2472
gaattegegg cegegtegac gggagtttee teattaaaag gaateeagtt atttgacegt 60
ataaaattat ttggaatgee tgetaageat eageetgatt tgatataeet eegttatgtg 120
ccgctctgga aggtccatat tttcacagtc attcagctta cttgtttggt ccttttatgg 180
gtgataaaag tttcagctgc tgcagtggtt tttcccatga tggttctcga g
<210> 2473
<211> 179
<212> DNA
<213> Homo sapiens
<400> 2473
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International application No. PCT/US99/24206

A. CLASSIFICATION OF SUBJECT MATTER						
IPC(7) :C07K 14/435; C12N 15/12 US CL :530/350; 536/23.5						
According to International Patent Classification (IPC) or to both national classification and IPC						
B. FIELDS SEARCHED						
Minimum documentation searched (classification system follower	ed by classification symbols)					
U.S. : 530/350; 536/23.5						
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched						
Electronic data base consulted during the international search (n	ame of data base and, where practicable, search terms used)					
EMBL, Genbank, EMBLest, Genbankest, USPAT issued search terms corresponding to SEQ ID NO: 252, 1538, 1598, 1734, 1881, 2012, 2104, 2114, 2183, 2348						
C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category* Citation of document, with indication, where ap	ppropriate, of the relevant passages Relevant to claim No.					
X Database Genbank on STN, Nation Information (Bethesda, MD), Accession						
CGAP, 'National Cancer Institute, Car	· · · · · · · · · · · · · · · · · · ·					
(CGAP), Tumor Gene Index, 23 Ja	, , , , , , , , , , , , , , , , , , ,					
relevant to positions 126-24 of instant	· · · · · · · · · · · · · · · · · · ·					
•						
X Database Genbank on STN, Nation	al Center for Biotechnology 4, 8					
Information (Bethesda MD), Acco						
MOEBIUS et al., 'Direct Submission,'	•					
634 relevant to positions 2-282 of inst	ant SEQ ID NO: 2114.					
X Database Genbank on STN, Nation	al Center for Biotechnology 4, 8					
Information (Bethesda MD), Acce						
ADAMS et al., 'Initial assessment of						
expression patterns based upon 83 r	· · · · · · · · · · · · · · · · · · ·					
sequence, 18 April 1997, positions 49						
= 201 of instant SEQ ID NO: 2012.	1					
X Further documents are listed in the continuation of Box (	C. See patent family annex.					
Special categories of cited documents:	"T" later document published after the international filing data or priority data and not in conflict with the application but cited to understand					
"A" document defining the general state of the art which is not considered to be of particular relevance	the principle or theory underlying the invention					
"E" earlier document published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step					
"L" document which may throw doubts on priority claum(s) or which is cited to establish the publication date of another citation or other	when the docum int is taken alone					
special reason (as specified)	"Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is					
*O* document referring to an oral disclosure, use, exhibition or other means	consbined with one or more other such documents, such combination being obvious to a person skilled in the art					
'P' document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family					
Date of the actual completion of the international search	Date of mailing of the international search report					
12 FEBRUARY 2000						
Name and mailing address of the ISA/US	Authorized officer					
Commissioner of Patents and Trademarks Box PCT IOHN S. BRUSCA						
Washington, D.C. 20231 Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196					
·,	, , , , , , , , , , , , , , , , , , , ,					

International application No.
PCT/US99/24206

<u>.</u>	·		
C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		•
Category*	Citation of document, with indication, where appropriate, of the releva	Relevant to claim No.	
x	Database Genbank on STN, National Center for Biotecl Information (Bethesda, MD), Accession Number R2477 HILLIER et al., 'The WashU-Merck EST Project,' 20 A positions 1-209 relevant to positions 32-240 of instant SNO: 1880.	4, 8	
x	Database Genbank on STN, National Center for Biotecl Information (Bethesda, MD), Accession Number AA63: CGAP, 'National Cancer Institute, Cancer Genome Ana Project (CGAP), Tumor Gene Index,' 28 October 1997, 172-405 relevant to positions 257-24 of instant SEQ ID	4, 8	
x	Database Genbank on STN, National Center for Biotech Information (Bethesda, MD), Accession Number AA02: HILLIER et al., 'WashU-Merck EST Project,' 09 May 1 positions 1-343 relevant to positions 371-29 of instant S NO: 252.	7135, 997,	4, 8
!	•		
		·	

International application No. PCT/US99/24206

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.:  because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
Please See Extra Sheet.
1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. X No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-8 SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348
Remark on Protest The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

International application No. PCT/US99/24206

# BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NOS: 1-2500 and the corresponding polypoptides encoded by the nucleic acids of SEQ ID NOS: 1-2500.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species searched without payment of additional fees. The Applicant's representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348 searched.